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UNIVERSITY OF ALBERTA

AN ASSESSMENT OF TOTAL QUALITY MANAGEMENT IN TWO ALBERTA HOSPITALS

BY

GREGORY C. HADUBIAK

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF HEALTH SERVICES ADMINISTRATION

IN

DEPARTMENT OF HEALTH SERVICES ADMINISTRATION

AND COMMUNITY MEDICINE

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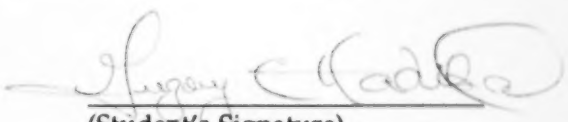

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "An Assessment of Total Quality Management in Two Alberta Hospitals" submitted by Gregory C. Hadubiak in partial fulfillment of the requirements for the degree of Master of Health Services Administration.

Supervisor

Date: December 6, 1992

ABSTRACT

Total Quality Management (TQM) is a management philosophy with origins dating back to the 1920's. It is a philosophy that has gained increased currency particularly with the economic revival of Japan after World War II and the challenge this has presented to Western industry. The interest with which this philosophy has been received has recently been transferred to the health care industry, both within the United States and Canada. The purpose of this dissertation was to review the concept of TQM itself, its historical development and application in industry, its application in American health care, and its application in two Alberta acute care hospitals. The ultimate objective was to determine whether TQM could indeed be transplanted from industry to Canadian health care.

The research approach taken was to conduct case studies of two Edmonton acute care hospitals that had recently implemented a TQM process in their organizations. Interviews were conducted with Board members, senior managers, middle managers, union officials, staff, physicians, and ex-managers. In addition, documentary evidence was obtained through a review of facility newsletters, committee minutes, training documents, and attendance at course offerings. As a basis for these case studies, an extensive literature review was conducted on the TQM concept, industrial applications, American health care applications, and relationship to existing management theory.

From the data collected the researcher was unable to make a definitive conclusion as to the applicability of TQM to Canadian health care or comment affirmatively on the likelihood of the success of such application. While there are

many factors strongly in favour of such application there are also significant barriers that have yet to be overcome. Some of these barriers are external environmental factors that will not be easily altered to facilitate TQM development, while other internal factors require vigorous action on the part of health care organizations themselves.

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I extend my thanks to all those individuals that consented to be interviewed by myself, either in person or by phone. Their willingness to provide precious time and candid comments on the most probing questions was appreciated.

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CHAPTER I

Introduction

Purpose and Research Objectives

The purpose of this study is to investigate the applicability of Total Quality Management (TQM) to the Canadian health care industry, specifically the acute care hospital setting. With increasing focus placed on the quality of service provided by acute care hospitals, and the cost-effectiveness and measurement of that service, a number of organizations have undertaken, or are currently contemplating, the introduction of a TQM process to their facilities. It is expected that a review of TQM, its historical development, and applications to date will facilitate an assessment of this option.

With respect to this overriding purpose two primary research objectives shall be addressed. First, it will be necessary to determine whether TQM is suitable for application in the Canadian health care field. Second, should the first research objective be answered in the affirmative, it will be incumbent upon the researcher to offer guidelines, and warnings, to other organizations contemplating the introduction of TQM.

Necessary prerequisites to achieving these research objectives shall be a literature review and case studies of ongoing implementation efforts in two Alberta acute care hospitals. The literature review will first describe the existing theoretical base for TQM. Without an adequate grounding in the principles of this management philosophy it is believed that the ability to

seriously study and apply TQM to health care will be compromised.

A history of the Japanese experience with TQM is intrinsically related to this overview of TQM and will form the second component of the literature review. To a large degree the acknowledged founders of TQM have been able to incubate and test their precepts in Japanese industry. In turn the Japanese experience has led to the breaking of new ground in the development of TQM.

A third component of the literature review shall be to review the application of TQM to North American industrial and service sectors. A review is necessary in order to objectively assess whether cultural factors, as opposed to management skill, account for recent Japanese commercial success. An assessment of this nature will contribute to addressing similar concerns regarding health care applications. It is important to illustrate objections to western applications if a full appreciation of implementation barriers in health care is to be realised.

The fourth component of the literature review will be to review the application of TQM in American health care. Irrespective of perceived cultural barriers and other objections to the application of TQM in western society, several health care organizations in the United States (i.e., Atlantic City Medical Centre, Health Corporation of America, Henry Ford Health System, Intermountain Health Care, University of Michigan Hospitals) have adopted TQM in their operations. A review of their experiences, both positive and negative, will facilitate an assessment of the applicability of TQM to health

care in general.

The final aspect of the literature review to be undertaken will be to expound on the relationship between TQM and existing management theory. This review will address itself to both micro and macro perspectives of management theory.

With the literature review providing the base for this thesis, case studies of two Alberta hospitals will be undertaken. Reviews of American health care applications may not appear particularly suitable as a base of comparison for Canadian institutions. This is primarily due to the key funding differences between the two systems of health care. Studies of Canadian experience should, therefore, prove more amenable to objective assessment of TQM by other Canadian health care organizations.

Significance of the Study

In the last ten years the Canadian health care system, acute care hospitals in particular, have been subjected to stresses, strains and demands for reform unprecedented since the inception of health care insurance. These pressures have been documented by the recognized experts in the field (Law, 1986; Taylor, 1987; Van Loon, 1986), by those attempting to engage the public in the health care debate (Rachlis & Kushner, 1989), and in the news media. This level of dissatisfaction arises partly because of the importance Canadian society places on the current health care system. However, it also stems from the difficulty the system has had in responding to its extraordinary challenges

(Rachlis & Kushner, 1989; Van Loon, 1986).

The most significant challenge facing the Canadian health care system has been the recognition that the era of unlimited funds for facilities, operations, and programs has ended (Law, 1986; Rachlis & Kushner, 1989; Taylor, 1986; Taylor, 1987; Van Loon, 1986). Governments, faced with ever-increasing demands for public funds and a static (and in some cases decreasing) revenue base, are no longer prepared to fund health care without limitations. With increasing attempts to address preventive, long term, and chronic care options, options considered more viable than interventionist care in improving health status (Law, 1986; Rachlis & Kushner, 1989; Taylor, 1987), the preeminent role of acute care centres has been increasingly called into question. Proposals for the reallocation of funding from the acute care sector to other sectors of health care have begun and are likely to increase.

Advances in health care technology have been another challenge for the health care industry. Technology has facilitated improvements in care and treatment of many illnesses and conditions that otherwise might have resulted in severe disability or death only a few years ago. Technology has thus enhanced the image of the health care industry as a whole. However, the lure of technological advances has also raised expectations of the public such that false hopes of medical miracles and infallibility are becoming commonplace (Law, 1986). This has put great pressure on health care organizations with respect to the quality of care expected of them. Furthermore, health care

professionals themselves have not been immune to the lure of technology. The result has been inadequate testing of new techniques, exacerbation of financial pressures on institutions, development of ethical issues, and questions as to how professional groups should interrelate with one another (Law, 1986; Rachlis & Kushner, 1989). These issues have not yet been adequately addressed.

A concomitant financial constraint involves demands of professional and employee groups within institutions for higher compensation. In some cases these demands for financial redress have been related to struggles for professional recognition, role definition, and "turf" protection (Rachlis & Kushner, 1989; Taylor, 1987). As with most employer-employee relationships, claims of financial destitution are unlikely to receive a sympathetic hearing. Furthermore, calls on the part of government, the public, avowed experts, and administrators for a new level of teamwork deemed necessary to meet challenges facing health care could be perceived as an effort to balance gains that such groups have only recently achieved.

The changing demographic profile of our society is also presenting challenges in the acute care setting (Law, 1986; Rachlis & Kushner, 1989; Taylor, 1987). The suitability of this setting for treating the elderly is being questioned. Questions are likely to be heard in increasing frequency and volume as alternatives to institutionalization increasingly become available, and as this sector of the population achieves greater political clout.

Related to the above is the belief that the quality of one's life is now at least as important as is the length of one's life (Law, 1986; Rachlis & Kushner, 1989). Acute care centres will increasingly be called upon to confront issues such as euthanasia, refusals on the part of patients to undergo extensive treatments if there is little perceived value, the efficacy of interventionist treatments, and increasing demands for justification of services both on the basis of cost-benefit and cost-effectiveness.

Among the traditional responses of hospitals to these pressures have been Quality Assurance programs, Risk Management programs, Peer Reviews, Medical Chart Audits, Accreditation reviews, and other retrospective quality review processes (Sahney & Warden, in press; Sutherland and Fulton, 1990; Wilson, 1987). It is recognized that these approaches have their limitations and are not effective in assuring the level of quality of care and cost-effectiveness that is now required (Berwick, 1989; Berwick & Knapp, 1987; Laffel & Blumenthal, 1989; Sahney & Warden, in press).

Traditional quality assurance activities have been focused primarily on meeting certain minimal standards often established by external agencies. Current quality management activities presume that there are acceptable levels of quality; this obviates the need for continuous improvement in methods. Berwick (1989) states that traditional quality management activities concentrate only on those instances of "poor performance", or "bad apples". There is no motivation to review the process as a whole with a goal of improving overall

performance. Opportunities to enhance the quality of care are reactionary rather than progressive. Moreover, by focusing measurement and quality management efforts on special instances, and individuals, there is a tendency to evade measurement or to rationalize variances that are discovered. The subjective nature of the reviews only compounds such effects (Berwick, 1989; Laffel & Blumenthal, 1989).

In a time of increasing demands to demonstrate cost effectiveness, efficacy, and quality of care, some acute care hospitals have decided to turn to Total Quality Management to assist them in meeting their challenges and reaching their goals. A systematic and objective examination of TQM, and applications in American and Canadian health care environment, could contribute to an assessment of this option for other Canadian health care organizations.

Organization of the Dissertation

Chapters 2 to 4 represent a literature review necessary to provide the base from which to assess the applicability of TQM to Canadian health care. Chapter 2 reviews the historical background and development of the concept, particularly as it relates to the Japanese experience. Chapter 3 flows from the preceding chapter in discussing the principles of the TQM philosophy. The most notable area of concentration is on the work of Dr. W. E. Deming and Dr. J. M. Juran. The work of other individuals is noted but only to the extent that they have expanded on the work of these two individuals. Chapter 4 then reviews applications in American health care. The National Demonstration

Project is highlighted.

In developing a better understanding of whether TQM can be applied to Canadian health care, Chapter 5 provides an overview of the TQM experience of two acute-care Alberta hospitals. This is accomplished by means of a chronological overview, followed by an analysis of the process based on impact on key constituent groups and as compared to Dr. Deming's framework for TQM implementation.

Chapter 6 summarizes the conclusions that this researcher has reached. These conclusions are developed at both a theoretical and practical level. Factors both favouring and hindering the application of TQM to Canadian health care are addressed. Chapter 7 offers a framework for TQM implementation that is based on the body of knowledge contained in the dissertation. The appendices that follow provide more specific detail on content of the dissertation, primarily as it relates to the TQM applications in the case study hospitals.

CHAPTER II

Historical Background and Development

This chapter contains a review of the origins of Total Quality Management. Few in the health care field can be considered knowledgeable of the roots of this management philosophy, its Japanese connection, and the roles of Dr. W. E. Deming or Dr. J. M. Juran. Managers may be interested to note that TQM is not a recent development in management but began in the 1920's and 1930's. Equally interesting may be the discovery that TQM was formulated not by traditional management theorists but by statisticians.

Origins Of Total Quality Management

Dr. W. E. Deming is the pioneer in the development and implementation of TQM. Dr. Deming did, however, base his principles on the work of Dr. Walter A. Shewhart (Ishikawa, 1981; Walton, 1986). Dr. Shewhart's work as a statistician in Bell Telephone Laboratories during the 1920's enabled him to develop techniques designed to bring industrial processes into what he termed "statistical control." Thus Shewhart became the first to recognize what was to become a standard principle of modern total quality control; the limits of random variation could be defined for any process or any aspect of a worker's task, and by defining these limits one could concentrate management attention and efforts on those instances when these upper and lower limits were exceeded. In anticipation of a basic tenet of modern quality control, Shewhart recognized that workers themselves, rather than management or inspectors,

could be trained to monitor their performance and that of their machines, allowing them to make the necessary adjustments and achieve greater control over their own work. Self-control led to greater efficiency in operations and enhanced worker satisfaction.

Dr. Deming's first contact with Dr. Shewhart came in 1927 when Deming worked in the Department of Agriculture. Dr. Deming's work involved him in a nitrogen fixing laboratory. Recognizing the value of Dr. Shewhart's work Dr. Deming set out to prove that the principles of random variation and process control could be applied not only to industrial processes but to clerical processes as well. The first real test of this expanded concept came with the advent of the Second World War.

The work of Drs. Deming and Shewhart came to the attention of those in charge of production of war materials in the United States. Dr. Deming was eager to assist with this effort and proposed to teach the Shewhart methods of Statistical Quality Control (SQC) to engineers, inspectors, and other technical individuals involved in wartime industries. His proposal was successful, as was the application of these concepts to wartime industry. However, despite these successes the principles of SQC rapidly fell into disuse after the end of the war. The reasons were straightforward. The North American continent was the only one to have escaped widespread devastation during the war and its industrial base, converted from war to consumer goods production, had no competition. Combined with rapidly growing consumer demand,

organizations saw little need for what they viewed as the time-consuming requirements of SQC. The key was quantity, not quality. Quality could be controlled by simply inspecting out the bad units of production (Walton, 1986).

For Dr. Deming this was a turning point in his career and the development of his principles. He readily recognized that his previous efforts, while necessary, had focused their attention on the wrong set of people. While it was necessary to educate technical people in his principles it was more important that management be knowledgeable and supportive of the concepts of SQC. Without management commitment to quality changes could not easily be made. In retrospect, this can be viewed as the end of an isolated statistical theory of quality control and the beginning of an integrated management philosophy experienced today.

The Japanese Experience

At the conclusion of World War II Japan was in a state of total devastation (Imai, 1986; Ishikawa, 1981). Most of its industrial base had been obliterated, its transportation system was functioning sporadically, and communications were almost nonexistent. An island nation, dependent on the acquisition of many basic requirements from the outside world, it was rapidly recognized that trade was the only way for Japan to rebuild and feed its people. This was a difficult task considering Japan's reputation for inferior goods and status as a defeated aggressor. New approaches to production were deemed necessary, with quality as the overriding concern, if Japan was to overcome its

difficulties.

At this time the Japanese were familiar with the work that had taken place in the wartime industries of the United States and Britain. They endeavoured, through the efforts of the Union of Japanese Scientists and Engineers (JUSE), to facilitate the widespread use of quality control. During their review of the principles of SQC they encountered the work of Dr. Shewhart and the name of Dr. Deming. Eventually a relationship was to be established between Dr. Deming, Japanese industry, and quality control efforts that continues to this day.

Dr. Deming was willing to apply his talents and concepts to the reconstruction of Japanese industry, to the extent that he did not accept compensation for his efforts. However, from his experience in the United States he had learned that, in order for his principles to succeed and for quality control to endure, it was necessary to expose, and gain the commitment of, managers to these principles. The Japanese embraced Dr. Deming's recommendations completely. In 1950 Dr. Deming, with the support of management, began his first seminars on SQC (Imai, 1986; Ishikawa, 1981; Walton, 1986). His prediction at that time was that Japan would begin to capture international markets within 5 years; he was proven right.

In 1954, Dr. Joseph M. Juran another TQM expert, arrived in Japan to incorporate his ideas into the process of quality control (Imai, 1986; Ishikawa, 1981). Dr. Juran's focus was centred on the role that top and middle

management had to play in furthering the development of TQM in their organizations. This focus marked a noticeable transition from quality control as a statistical technique to an overall management technique.

The Japanese experienced difficulties in their initial implementation of TQM for the following reasons: a lack of practical guidelines for carrying out TQM; a lack of familiarity with statistical and analytical methods; contradictory actions by top and middle management; prevalence of sectionalism; worker resistance to what they saw as useless statistical methods; a resistance to standards or a willingness to develop them; a lack of data necessary to implement TQM; the inadequacy of existing data collection and measurement methods; and, a great deal of suspicion as to the reason for collecting such data (Ishikawa, 1981).

Despite these difficulties the Japanese have been able to employ and develop TQM successfully over the past 40 years. The proponents of its utilization have no doubt that it is one of the keys, if not the prime reason, for the Japanese economic miracle (Deming, 1982; Imai, 1986; Ishikawa, 1981). Commonly known as Kaizen (Ky'zen) in the Japanese language, it has come to mean ongoing and continual improvement, involving everyone and every activity in the organization (Deming, 1982; Holpp, 1989; Imai, 1986; Ishikawa, 1981). For the Japanese it has become a thought revolution in management (Ishikawa, 1981) and a concept or goal that is to be pursued with missionary zeal (Imai, 1986). These latter two comments are the ones that are met with

skepticism within Western industry, most likely because of their emotional and spiritual connotations. They are in sharp contrast with the scientific management method that has characterized Western management since the early 1900's.

Japanese TQM has clearly distinguished itself from contemporary quality control efforts and from TQM efforts in Western economies. The most succinct summary of these distinguishing characteristics is provided by Ishikawa (1981) although inferences can also be found in the works of several other researchers (Deming, 1982; Feigenbaum, 1983; Imai, 1986). The first distinguishing characteristic of Japanese TQM, discussed earlier, is the company-wide focus of such efforts, involving everyone in the organization. The benefits of such a focus can readily be recognized in the statement with which Westerners are so familiar with; a chain is only as strong as its weakest link.

The second distinguishing characteristic of Japanese TQM is the emphasis placed on education and training with respect to the concepts of quality control. A constant focus is that process improvements begin and end with education. The extent of these educational efforts exceeds what has been attempted in Western economic enterprises (Ishikawa, 1981; Imai, 1986). For Japanese firms, education is likely to be extremely detailed, lasting over several months, repetitious to ensure that concepts and specifics are grasped and reinforced, and interspersed with on-the-job application (Ishikawa, 1981). Education and learning are not restricted to the efforts of specialized teachers,

but are facilitated by the efforts of supervisors and managers on the factory floor.

A third distinguishing characteristic of Japanese TQM is that of Quality Control (QC) Circle activities. The use of groups of workers and QC Circle activities is likely to be familiar to many managers in business and health care. Unfortunately, the nature of this knowledge derives from failures to live up to expectations rather than from successes enjoyed. Japanese commentators point out that such efforts are doomed to fail when left unsupported by other structural and cultural characteristics of the organization (Imai, 1986; Ishikawa; 1981). Within Japanese companies QC activities were not mandated, but rather formed voluntarily at the initiative of individual workers themselves and were designed to enhance their working lives rather than to address productivity issues. Despite such inauspicious beginnings, these activities have thrived and grown to the extent that millions of individuals are now engaged in such activities and communicating with other groups nationwide.

A fourth characteristic distinguishing Japanese TQM efforts is the practice of QC audits. While the basis for TQM efforts is the review of work processes to discover means of improvement, the TQM effort itself is also the subject of scrutiny. A QC audit does not focus on finding out "who" is at fault, but rather "what" is at fault, with the goal of improving the work environment. Japanese companies utilize an extensive variety of internal audits and use the criteria established for the Deming Prize (Appendix A) as an external audit of

their quality efforts.

Extensive use of statistical methods is the fifth distinguishing characteristic of Japanese TQM. Educational efforts stress the application of basic statistical and analytical tools at all levels in the organization. A corp of statistical specialists is not maintained within the organization. The workers themselves, with the assistance of their managers, are able to review their processes on a continual basis through statistical methods. The use of data and facts, as opposed to hunches and guesses, is fostered in problem identification and resolution.

The final characteristic distinguishing Japanese TQM is the nationwide focus, organization, and publication of TQM efforts. Nationwide organizations, such as JUSE, and journals have been a prime means by which the Japanese have developed and improved their quality control efforts. Communication of such efforts is not viewed as a lose of one's competitive edge, but rather as setting a bench mark for other companies to reach or improve upon. Entire industries are constantly forcing themselves to improve through this competitive effort. This uniquely Japanese approach to quality has only been applied to manufacturing processes (Walton, 1990). Few service applications, including Japanese health care, have been attempted.

The above six characteristics identify the core of these efforts. The sections that follow will, however, provide more detail on the impact that TQM has on the role of management, on the relationship between management and labour,

and the suggestion system that various Japanese companies have been able to foster.

TQM requires a different role for management (from that prescribed by scientific management) at all levels of an organization. While some of the requirements may appear to be common sense prescriptions they entail greater obligations on the part of management. First it is necessary that top management commit to the TQM process. This commitment is necessary in principle and in terms of time. This time commitment is primarily devoted to ensuring that a corporate culture is developed to enhance the efforts and encourage the suggestions of all workers of the organization (Imai, 1986). These efforts may involve personally leading some educational sessions, setting policy consistent with TQM principles, sharing information and causing information to be shared throughout the company, and conducting QC audits.

Complementary to this role is management's relationship with its workforce. The most notable example is the system of lifetime employment that workers enjoy with their organizations (Ishikawa, 1981). While partly explained by cultural factors, it is also true that the Japanese recognize their workers as valuable assets. The labour force is seen as an asset that is acquired, is developed through training to enhance its value; therefore, efforts must be made to retain such a commodity. Japanese organizations admit that quality of personnel has a direct impact on the quality of their organizations and the products that they produce (Imai, 1986). This recognition even

extends to efforts to implement TQM activities in the workplace; compulsion is not the method of choice for implementing TQM because such efforts are not consistent with the principles of TQM and would also not exemplify the inherent value of a cooperative and dedicated workforce.

The suggestion system, one of the most successful aspects of Japanese TQM is directly related to this system of labour-management relations. Successful Japanese companies such as Toyota, Sony, Mitsubishi, and Honda are well known for the volume of suggestions that they both receive and utilize from their employees (Imai, 1986). The development of a suggestion system takes time, with estimates ranging anywhere from 5 to 10 years (Imai, 1986). Management willingness to implement suggested changes is also required. Without such willingness, efforts to foster worker involvement through this vehicle would fail. Management responsiveness should not be conditioned on the basis of direct economic payback to the organization. Rather, there must be the recognition that such a system is an efficient means for improving and sustaining employee morale and for acting as a means for communication between management and labour. The results can be impressive as one Japanese company demonstrated in 1985, with over 6 million suggestions being offered by its workers, 16,821 by one individual alone (Imai, 1986).

Other success stories are described by Walton (1986). Between 1978 and 1982 the Japanese firm of Kayaba observed the doubling of the number of its

QC circles to 6,000 and the number of suggestions in its organization increase from ten thousand to fifty thousand. Kansai Electric Power, Japan's second largest utility and a highly successful company when it commenced TQM activities, experienced a four fold reduction in costs in two years. In addition, and more important to the company, was improved employee morale, increased spirit of teamwork, and heightened sensitivity to the market and the customer. The Hiroshima plant of Japan Steel Works began its TQM process in 1977 and observed employee suggestions rise from 5.6 per year in 1978 to 28.5 in 1984. Between 1978 and 1981 the cost of defects and claims as a proportion of sales dropped from 1.57 to 0.40. Production rose 50 per cent while the workforce dropped from 2,400 to 1,900. Accident rates dropped from 15.7 to 2.3 per million man hours with a corresponding decrease in rates of absenteeism related to accidents. The largest benefit, however, was the positive effect on the morale and productivity of the workforce.

The Return to North America

During the 1970's and early 1980's North American industrial and service sectors were characterized by high interest rates, high inflation, stagnating growth, and other recessionary pressures. At the same time increased foreign competition, most notably from the Japanese, was being experienced (Casalou, 1991; Clemmer & Sheehy, 1990; Sahney & Warden, in press). The first steps North American companies utilized to maintain market share and profitability included lay-offs, price cuts, and attempts to seek protection from foreign

competition. This did little to reduce the competition. Manufacturers of items such as integrated circuits, colour televisions, steel, and automobiles, found themselves in an increasingly tenuous position. Some organizations did not survive this challenge.

Other companies began to recognize that the Japanese competitive edge would not be met except through a fundamental change in management methods in North America. On June 24, 1980, American television network NBC decided to air a documentary on Dr. Deming and his work with respect to quality (Sahney & Warden, in press; Walton, 1986). The documentary, titled "If Japan Can...Why Can't We?" is now considered to be the starting point of a major change in North American industry. The new focus of organizations was to be on quality. Like any change, however, this new focus also met with its detractors.

There were many in North American industry that refused to believe that the Japanese had a better way of managing their organizations or that their management style was the reason for their success in the international marketplace. Many found it hard to believe that one individual, whose ideas had been shunned in North America, could be responsible for these dramatic successes. It was more palatable to attribute the success of the Japanese to a host of cultural factors and protectionist trade practices.

The most succinct summary of these cultural factors comes again from Ishikawa (1981). Ishikawa recognized that an organization does not operate in

a social and cultural vacuum and that its TQM activities must develop within a framework determined by the environment in which it operates. He believes the success of TQM can be attributed to a number of societal and cultural factors which are uniquely Japanese and in sharp contrast with conditions in Western society. He views the organization-wide perspective and team-work inherent in TQM as being facilitated by the lack of specialization and professionalism characteristic of Japanese society. The fact that labour unions do not strictly divide workers into strict job classifications means that employees are more able to assume the duties of their co-workers unrestrained by concerns of wage differentials. The Japanese enjoy more flexibility in the deployment and training of their workforce than do Western organizations. The employment pattern is characterized by lifetime employment, although this is more a societal norm than a legal or contractual obligation. Education and training of employees is accorded high priority in Japanese organizations. Ishikawa also stresses the high level of education in Japanese society as a whole, and correlates this to the success of TQM in Japan. Similarly, he views the difficulty of the Japanese writing style, Kanji, as being of benefit to Japanese workers in analyzing and resolving complex problems. Finally, he believes the racial homogeneity of Japan and inherent differences in the views of the nature of man, epitomized in religious beliefs, has also facilitated Japanese success in TQM.

Other commentators believed, however, that TQM could be, and should be,

applied to North American industry (Deming, 1982; Imai, 1986; Juran & Gryna, 1970); even Ishikawa implicitly recognized this. In discussing the situation in Japan at the conclusion of World War II, Ishikawa stated that, even though American and British methods were good, TQM could not be imported as it stood, but rather would have to be adjusted to create a Japanese model (Ishikawa, 1981). He recognized that cultural factors, while having an influence, were not an insurmountable barrier to adapting the techniques and concepts of other societies. Moreover, recall that the birth of TQM in Japan was the result of the ideas of an American and that the first successes of TQM took place in America before being transplanted.

Further evidence that TQM could be applied to Western industry is provided by American and Canadian organizations that have enjoyed success with TQM. Some organizations have benefited from having Japanese sponsors, or takeovers, which provided experience for implementing the process.

It is likely, however, that examples of uniquely Western organizations utilizing TQM will be more convincing than examples of Japanese success in North America. Several have implemented TQM, including Chrysler, Ford, General Motors, Motorola, BASF Corporation, Nashua Corporation, American Telephone and Telegraph, Campbell Soup, IBM, and 3M (Sahney & Warden, in press; Walton, 1986).

One of the most notable examples of successful implementation of TQM

has been Xerox. In the early 1980s Xerox was faced with falling market share and declining profits (Middleton, 1990). The most telling acknowledgement was that one of Xerox's foreign competitors had been able to produce and sell a copier at a price which equalled Xerox's production costs (A. K. Francis, personal communication, October 31, 1991). Change was not only desirable, it was critical for the survival of the company. Following a review of the success of a Japanese subsidiary, Xerox decided to implement a plan called "Leadership Through Quality." Continuous quality improvement was to become the way of life in the organization, with customer satisfaction as the number one goal. It would be achieved by the involvement of every employee in the delivery of innovative products and services.

Xerox has utilized surveys, group interviews, and market studies to determine customer requirements. Employees are involved in every aspect of the organization including planning. Competitive benchmarking, the continuous process of measuring performance against leaders in the industry, has consistently provided Xerox with its goals. For such benchmarks, Xerox looks beyond it's direct competitors to other companies recognized as leaders in their respective fields.

The results for Xerox have included increased product quality, decreased manufacturing costs, and increased customer and employee satisfaction. At Xerox Canada the time between order and installation improved 45 per cent between 1986 and 1989, while the defects per 100 machines improved from 30

in 1984 to seven in 1988. Customer satisfaction stands at 92 per cent and employee satisfaction at 75 per cent (Royal Bank, 1991).

Hewlett Packard, an early convert to TQM in the 1980s has also been able to demonstrate impressive results (Gilks & Kearney, 1990). They have been able to reduce defects by a factor of ten, saved $600 million in warranty costs from 1980 to 1989, reduced accounts receivable by $200 million through improvements in invoicing processes, and reduced work-in-process inventory by $500 million. Hewlett Packard began broadening their program in 1989 in an attempt to accelerate product development cycles.

Several service firms have also experienced success in applying TQM. In the 1970's the Florida Power & Light Company was facing problems of increasing costs, slow growth, and strict environmental and industrial regulations. (Middleton, 1990; Royal Bank, 1991). A quest for quality was deemed to be the only way to address these issues and, despite internal resistance, the company implemented its program in 1981. Four basic principles formed the foundation of the quality improvement process: customer satisfaction, management by fact, respect for people, and the process of "Plan-Do-Check-Act". The company began to see results almost immediately but recognized that their effort required more. Specifically, the need to have top management commitment, provision of massive training and education to all employees, and to solicit, even demand, the participation of all employees, were all viewed as critical elements of a successful TQM process.

Notable for its project and financial successes, Florida Power & Light also achieved international recognition for its TQM process. In 1989 the company became the first non-Japanese organization to be awarded the Deming Prize. This is a prize that is named after Dr. Deming and has been recognized as the preeminent award for Japanese companies in their pursuit of quality

Another success involves the Federal Express Corporation (Middleton, 1990). Based on a desire to become a reliable, overnight courier service, Federal Express has developed strict guidelines with respect to quality service. Customer satisfaction is deemed to be the prime goal. Measurement of company performance and analysis of company failures is paramount. Top management commitment is identified as essential in driving the process. A focus on customer satisfaction is developed in employees through orientation and continuous training. Also emphasized are the principles of empowerment (that is, giving the employees the right to make decisions on the spot), teamwork, and fair treatment of employees. Through these efforts Federal Express has become the acknowledged leader in its field.

Despite the successes experienced by these companies, there is also evidence that many TQM initiatives fail to achieve the results expected of them (The Economist, 1992). Many organizations, therefore, abandon their efforts within a relatively short period of time. Even organizations considered to have successfully adopted TQM have had problems, both in the implementation and the continued development of the concept including:

varying levels of resistance to implementation of the process; employee skepticism of another management initiative; managers who resent the implications that TQM holds for their power and authority given the empowerment of employees that is called for; and, senior management that fails to understand the extensive cultural change, time commitment, and endurance that is required of them (Hammonds & DeGeorge, 1991; Port & Carey, 1991). These difficulties, exacerbated by routine operational exigencies, can lead to setbacks and abandonment of the effort.

These difficulties can also be explained by relative inexperience of western companies in TQM concepts and methodology (The Economist, 1992). Generally, North American experience has been limited to a period commencing in 1980, while Japanese experience dates to the late 1940's. It is possible that a learning curve exists and that North American industry is at a lower point along that curve.

Another key variable identified in determining the success or failure of a TQM initiative is the perspective taken on its goals. The primary contrast being one of focus on targeting manufacturing or service processes for improvement rather than focusing on what customers deem important, or focusing on activities rather than actual outcomes as measures of progress in TQM (The Economist, 1992; Schaffer & Thomson, 1992). A process improvement focus, reinforced by beliefs that problem solving efforts must occur at the earliest possible stage in product or service provision, may distract

an organization from determining whether customers value an improved process, or value the product or service produced at all. Customer expectations are thus viewed as the driving force behind any process improvement initiative (The Economist, 1992).

Schaffer and Thomson (1992) are adamant that activity centred quality improvement initiatives are flawed primarily because they confuse ends with means, processes with outcomes. Continued investment in this approach does not lead to the desired outcomes for several reasons: it is not linked to the achievement of specific, targeted results; efforts are typically too large scale and diffuse; an emphasis on short-term results is discouraged because that is viewed as a perspective that has led to western industrial problems at the present time; measures of activity are equated with actual progress; it is a process not driven by operational management; and, there is no empirical basis for process improvement, but rather an increased demonstration of faith in the process (Schaffer & Thomson, 1992).

A prime example of a concentration on activity and process, as opposed to actual results and customers, is Florida Light and Power (The Economist, 1992; Hammonds & DeGeorge, 1991). In attempting to become the first non-Japanese winner of the Deming prize their quality improvement effort resulted in the creation of an 85-member quality improvement department that took on a role out of proportion to its original mandate. Although winning the Deming prize in 1989 the improvements in customer service were insignificant

(The Economist, 1992; Hammonds & DeGeorge, 1991). Since then their quality improvement department has been scaled back to 6 employees and employees throughout the organization have been urged to rely more on their own training in their day-to-day work.

Additional reasons sited for the failure of TQM processes are: failure to empower all employees; failure to redesign the organization structure and break down functional barriers; failure to redesign performance appraisal and compensation systems; creation of "quality" departments, which serves to isolate the quality improvement effort; and, an inability to overcome resistance, primarily at management levels (The Economist, 1992).

Overall, then, the success of TQM in the North American industrial and service sectors has been mixed. It appears, however, that such relates more directly to errors in understanding and implementation of the concept than it does to inherent flaws in the concept itself. What successful organizations have demonstrated is that while a focus on process is important, it is of even greater importance to continually assess such activity on the basis of customer expectations and strategic direction.

Chapter III

The Guiding Principles

The implementation and development of TQM in Japanese and American industry has been primarily guided by two men: Dr. W. E. Deming and Dr. J. M. Juran. They have each developed what they believe to be comprehensive statements of philosophy for the improvement of management and organizational effectiveness. These guidelines have, in turn, been influenced by the experiences of industry in applying these concepts to the real world of business. While other individuals have contributed to the development of the TQM philosophy (P. Crosby and A. Feigenbaum for example), Deming and Juran are considered the founders of TQM. The following discussion presents a review of the TQM principles of these two individuals.

Dr. Deming's Philosophy

Dr Deming has summarized his philosophy of management through his "14 Points" and "Seven Deadly Diseases" and "Obstacles" (Casalou, 1991; Deming, 1986; Middleton, 1990; Sahney & Warden, in press; Walton, 1986). The points have been revised several times as he became more experienced in the application of TQM but the overall essence of his statements has remained unchanged. Deming advises management to adopt a long term perspective where quality becomes the central focus of the organization (Deming, 1986; Sahney & Warden, in press; Walton, 1986). This perspective must apply to all aspects of the organization and includes: shifting the emphasis from

inspection to prevention; developing long term relationships with only a few suppliers; and, continual training and retraining of employees. Short term goals and profit margins are no longer to be the focus of management and organizational actions. The overall goal is to stay in business and provide jobs, not to be concerned with profit and dividends of shareholders.

The basis for Deming's philosophy is more explicitly detailed in the Fourteen Points. These points constitute a broad recommendation for reform which a company must suitably adapt to its corporate culture (Casalou, 1991; Deming, 1986; Walton, 1986). This last point is important as it begins to address the concerns of those who are skeptical of the application of TQM in societies other than Japan and to areas other than industry. Proponents of TQM argue that it is a concept that is universal because of its adaptability to many circumstances. The Fourteen Points are detailed below.

Point One: Create Constancy of Purpose. This speaks directly to the need for management to develop a long-term perspective. A long-term perspective will insure the development of security and stability in the organization particularly as performance appraisals begin to focus on the achievement of long-term rather than short-term goals. Constancy of purpose is enhanced by a commitment to innovation, research and education, continuous improvement of products and services, and maintenance of plant and equipment.

Point Two: Adopt The New Philosophy. This requires the transformation of the traditional style of management. The transformation is meant to:

reverse the practice of accepting mistakes and defects in products or services; remove barriers between management and workers (thus reducing fear and information gaps); and, improve training for the workforce. It is a prescription to believe enthusiastically in quality as a driving force in the organization. It is this almost religious commitment to transformation that turns many managers away from TQM, but this may be necessary if the magnitude of change required is to take place.

Point Three: Cease Dependence on Mass Inspection. By emphasizing inspection, a company plans for defects. This emphasis does not result in higher customer satisfaction, does not bring about substantive change in organizational processes, and increases the costs to both parties. The alternative is to look further upstream in the process, to establish the true causes of the defects and take action so that defects can be prevented. This also changes the focus from blaming individuals for problems, to reviewing processes to determine why errors are made in the first place. It is important to stress that Deming does not suggest that inspection processes be eliminated completely. A certain amount may be practical and necessary, but not as the prime means of assuring quality of products and services (Walton, 1986).

Point Four: End The Practice Of Awarding Business On Price Tag Alone. This practice is considered a guarantee of instability and substandard quality. Price itself is no guarantee of lowest cost over the life of the product or service; the perspective should shift from lowest initial cost to lowest overall cost. This

point requires the establishment of long term relationships with suppliers for the purpose of continually reducing variation in inputs and thus improving quality of outputs. Complementing this external supplier relationship is the relationship between the organization and its internal constituents. A secure environment must be created for employees to ensure the development of trust and loyalty between management and labour. This implies that management consider the implications of any change which impacts labour in light of the potential impact on quality and productivity. An environment of this nature is believed to lead to higher overall quality.

Point Five: Improve Constantly And Forever The System Of Production And Service. Improvements are not seen as a one-time effort but rather as a continuous effort. Such an effort must begin with the design stage and involve everyone in the organization. This includes not only the production and service provision processes but also the means by which employees are recruited to, and trained in, the organization and the means by which other resources are obtained and allocated. It also has implications for how the organization solicits input from customers and responds to that input.

Point Six: Institute Training. In order for an organization to achieve the highest level of quality and productivity there is a strong need to invest in the workforce. This means training in specific job skills as well as training in the tools and techniques of TQM. An understanding of variation inherent in organizational processes is also mandated.

Point Seven: Institute Leadership. Management is called upon to lead rather than manage and to help rather than hinder the work of employees. Management accomplishes this task by removing barriers that prevent workers from doing their jobs and by providing their employees with the means to do a more effective job. Emphasis must change from numbers to quality, to proper production rather than quick production, and to listening and acting on employee suggestions. Management must accept sole responsibility for the success or failure of their employees because only management controls the environment in which employees work.

Point Eight: Drive Out Fear. This is viewed as one of the most critical points of the fourteen due to its impact on the remainder. With fear in the organization there cannot be open communication, innovation, and teamwork, which are the essential requirements for continuous improvement in processes. Reducing and eliminating fear in an organization is management's responsibility and is a process that takes time and commitment.

Point Nine: Break Down Barriers Between Departments. Without open communication and cooperation between departments improvement in organization-wide processes is unlikely as different divisions work at cross purposes. Each department must begin to look upon its counterparts as their internal customers and deal with them as such. This point is closely related to points three and eight. Top management plays an integral role in establishing the environment necessary to achieve such teamwork, particularly in the

establishment of reward systems that either enhance or inhibit teamwork.

Point Ten: Eliminate Slogans, Exhortations, And Targets For The Workforce. These only create frustration and resentment among employees. This is particularly true if the means for achieving the stated goals are not available. Mandated targets create the impression that employees are not working hard enough and that if they truly applied themselves the targets could be reached. Management must realize that most of the inhibitors to higher performance and quality come not from the workers but from the systems within which they work. Only management can control and change these processes and it is up to them make the necessary alterations.

Point Eleven: Eliminate Numerical Quotas. Quotas or standards are seen as inhibitors to continuous improvement in quality and productivity. Deming views them as being guarantees of poor quality and inefficiency. Rather than focusing on standards the goal should be one of continuous reduction in variation in processes.

Point Twelve: Remove Barriers To Pride Of Workmanship. Barriers such as unclear expectations, ever-changing standards, arbitrary supervision, lack of (timely) feedback, lack of training, poor equipment, poor supplies, and evaluation systems that focus on short-term goals are areas that need to be addressed if overall quality and productivity is to be improved. In many cases this necessitates involvement of workers in the decision making processes that affect their work. These efforts must be genuine and will be difficult for

management to initiate.

Point Thirteen: Institute A Vigorous Program Of Education And Retraining. This is similar to point six above. The focus, however, is concentrated on dealing with employees as people and as assets essential to the long term success of the organization. Moreover, the organization must make a commitment that no one will lose his/her job because of improvements in quality and productivity.

Point Fourteen: Take Action To Accomplish The Transformation. This requires an extensive degree of senior management commitment to the process. Senior management is mandated to become directors, missionaries, and coaches for the TQM process. It involves providing the necessary resources for the process to succeed. These resources include time on the part of senior management and the provision of clear communication channels and information exchange throughout the organization. It inevitably requires alterations in the organizational structure to facilitate the TQM process.

Paralleling these Fourteen Points are "Diseases and Obstacles" Deming believes currently inhibit western attempts at achieving higher quality and productivity (Deming, 1986; Walton, 1986). He believes that potentially fatal consequences exist for organizations that do not address these barriers. The Seven Deadly Diseases are;

1. Lack of Constancy of Purpose,
2. Emphasis on Short-term Profits,

3. Evaluation of Performance by Merit Rating or Annual Review,
4. Mobility of Top Management,
5. Running a Company on Visible Figures Alone,
6. Excessive medical costs,
7. Excessive costs of warranty.

The obstacles that Deming perceives are many. Among them are: neglect of long-range planning and transformation; reliance on technology to solve problems; continuous search for examples to emulate, rather than looking for internal solutions consistent with an organization's culture; a perspective that every organization's problems are different; obsolescence in schools; reliance on quality control departments; blaming the workforce for problems; quality by inspection; a lack of genuine change in organizational culture to facilitate TQM; the unmanned computer; a predilection to meeting specifications; inadequate testing of prototypes; and, an unwillingness to learn from others unless they are perceived to have an intimate understanding of an organization's business.

Dr. Juran's Philosophy

Dr. J. M. Juran's approach to TQM is quite similar to that of Dr. Deming but does differ in some key aspects. First, Dr. Juran's guidelines are less philosophical and provide more practical guideposts for management and quality improvement specialists to follow in accomplishing the organizational transformation. These guidelines are encapsulated in the "Quality Trilogy"

(Juran, 1989) which consists of the three interrelated stages of Quality Planning, Quality Control, and Quality Improvement. Each of these in turn is broken down into specific areas of action.

Before considering how to implement the three stages, a quality oriented organization requires agreement on the definition of quality and what the quality goals should be for the organization (Juran, 1989). Agreement is often blocked by differences in viewpoint among the management team, differences which are often hidden and unknowable and thus difficult to overcome. For Juran, quality is best defined as fitness for use, or alternatively, as product or service features that meet customer needs, or a product or service that is free from deficiencies (Juran, 1989; Middleton, 1990). Implicit in this definition is the discovery of who the customers are. For Juran, they are anyone that receives or is affected by a product or process, and can be either external or internal to the organization.

The first step in Juran's Quality Trilogy begins with Quality Planning which is concerned with developing products and processes to meet customer needs. It is also the key step in the trilogy through which processes that produce deficiencies are actually changed. This stage of the trilogy is further subdivided into five stages as follows:

1. Determine who the customers are
2. Determine the needs of the customers; such needs are constantly evolving
3. Develop product/service features that respond

to customers' needs

4. Develop processes that are able to produce those product features

5. Transfer the resulting plans to the operating forces

These five stages of quality planning are not just applicable to the corporate or divisional level. They are also applicable at the worker level, the departmental level, and the multifunctional level.

The results of this first stage give rise to the second step of the trilogy, Quality Control. The purpose of this second step is to monitor the process and take corrective action to keep the process under control (Sahney & Warden, in press). In this stage, attempts are made to maintain the status quo and minimize damage from unanticipated changes. As such the three steps of this stage mirror the classic feedback loop system:

1. Evaluate actual quality performance

2. Compare actual performance to quality goals

3. Act on the differences

The ideal is to reach a stage of self-control for the employees (Juran, 1989). Such a level of control is reached by adequately informing the workforce as to what the goals are, providing them with the means of ascertaining what the level of actual performance is, and then providing them with the means for altering performance should it not conform to established goals and standards. This implies a new role for both management and labour primarily focused on

new responsibilities and accountabilities for the success of the process. Integral to this stage is the development of an adequate means to measure performance levels and a corresponding revision of the reward system to emphasize quality.

The final step in the trilogy is that of Quality Improvement. This step is the area wherein the organization achieves its breakthroughs and reaches new heights of quality. It does not concern "firefighting" efforts, but rather addresses itself to ongoing, chronic problems. This step is further subdivided into the following segments:

1. Establish the infrastructure to secure annual quality improvement; an essential part of this infrastructure is the Quality Council

2. Identify the specific needs for improvement; these will be the improvement projects

3. For each project, establish a project team with clear responsibility for bringing the project to a successful conclusion

4. Provide the resources (including financial resources), motivation, and training needed by the teams to:

    Diagnose the causes
    Stimulate establishment of a remedy
    Establish controls to hold the gains

Quality improvement efforts must also be focused on what Juran calls the "big Q", that is, achieving quality on a large scale or undertaking projects with a potentially large impact (Juran, 1989). Like Deming, Juran also calls for extensive and personal involvement of upper management in the quality

improvement effort. This involvement includes participation on the Quality Council, establishment of the quality goals in quantifiable and time limited terms, releasing resources for the project teams, monitoring progress, providing recognition, revision of reward systems, serving on project teams, and recognizing and dealing with the inevitable employee apprehensions.

Other Philosophies

Another key difference between the philosophies of Deming and Juran is Juran's belief in the necessity of measuring the costs of quality (Sahney & Warden, in press). For Deming there are too many costs that cannot be measured and that are unknown, most importantly the cost of lost customers. While Juran is a proponent of measuring the costs of quality, or lack thereof, the most explicit development of this concept comes from Phillip B. Crosby, former corporate vice president of ITT.

For Crosby the cost of quality is the cost of doing things wrong; costs, which if eliminated, would directly impact on profit levels (Crosby, 1979). This cost of quality can be broken down into two areas: the price of non-conformance; and, the price of conformance (Crosby, 1984; Middleton, 1990; Sahney & Warden, in press). Non-conformance costs include costs related to internal and external failures and take the form of rework, scrap, lost production/service time, liability, and replacement costs. The price of conformance includes such costs as education, training, prevention, inspection and testing, efforts all directed at minimizing the costs related to non-

conformance noted above. The goal of an organization, from Crosby's viewpoint, is to minimize the sum of all of these costs.

Crosby estimates that 20% to 30% of all operating costs in an organization can be related to these types of costs (Crosby, 1979; Sahney & Warden, in press). Many organizations struggle to get a true picture of these costs. Existing accounting practices lack the ability to track the necessary information; revamping such systems appears an impossible task. Complete accuracy, however, is not deemed necessary for making informed decisions, identifying priorities, and taking action. Rather, it is assumed that the organization and its leaders will take corrective actions even if only assured that roughly 25% of their current costs are avoidable.

Another significant theorist is Armand V. Feigenbaum. His principles are similar to those of Deming, Juran, and Crosby. His unique contribution is his emphasis on the application of engineering and statistical methods to all areas of an organization (Feigenbaum; 1983; Middleton, 1990). Included with traditional areas of application, like production, are staff and support areas. It was this emphasis that caused Feigenbaum to coin the phrase "total quality control" which again speaks to the universality of TQM principles.

Relationship With Existing Management Theory

A Macro Perspective

TQM shares much in common with existing organizational theory from a macro perspective. First, is the theory of organizational structure proposed by

Mintzberg (1979). Mintzberg proposed five organizational structures: simple structure; machine bureaucracy; professional bureaucracy; divisionalized form; and, adhocracy (Mintzberg, 1979, 1982). These structures are distinguished by the way in which the organizations coordinate their work: direct supervision; standardization of work processes; standardization of skills; standardization of outputs; and, mutual adjustment respectively (Mintzberg, 1979, 1982).

Mintzberg viewed organizations as adapting their structures as they matured, as their work became more complicated, or their environments became more dynamic. Thus, organizational structure tended to progress under such circumstances from a simple structure through to adhocracy, from coordinating by means of direct supervision to mutual adjustment. TQM proponents similarly can be seen to advocate the same switch from direct supervision to mutual adjustment by prescriptions to: remove barriers between management and workers; remove barriers between departments, specifically by creating an environment where the term "customer" can be applied to internal constituents; and, to involve and empower all workers in the business of the organization (Deming, 1986; Juran, 1989; Walton, 1986).

In addition, TQM proponents and Mintzberg's adhocracy form (1979, 1982) also appear to advocate flattened organizational structures. Within TQM such is accomplished by breaking down barriers between management and staff and empowering and involving staff. For Mintzberg (1979, 1982) this is accomplished by broadening horizontal job specialization and diminishing

vertical job specialization.

TQM also has similarities to the work of Burns and Stalker in advocating an "organic" form of organization (Daft, 1989; Galbraith, 1977). An organic form of structure is characterized by loose control and a free-flowing management style. It is typically associated with: an uncertain environment; a workforce that contributes to the common task of the organization; tasks which are adjusted and redefined through employee interactions; less hierarchy of authority and control; decentralization of knowledge and control of tasks; and, horizontal communication (Daft, 1989). Prescriptions of this sort again appear to be in keeping with the TQM philosophy of empowerment and involvement of workers and breaking down barriers between departments (Deming, 1986; Juran, 1989).

To a lesser degree, Thompson's theory of technological interdependence and its influence on organizational structure can be linked to TQM (Daft, 1989). For Thompson there are three levels of interdependence consisting of pooled, sequential, and reciprocal. The most complex of these relationships is that of reciprocal which views the outputs of any department being utilized as an input to another and then returned as an input to the originating department. An organization with such relationships must structure itself to facilitate frequent communication, adjustment, and a high degree of coordination. This can be viewed as comparable to the emphasis that TQM places on the value of viewing other departments as internal customers.

Finally, the concept of organizational learning can be compared to what is recommended by TQM proponents (Daft, 1989). Generally, this process is defined as a process by which organizations develop knowledge about organizational actions and environmental outcomes. The most complex level of such learning, and the one that has the most comparability to TQM, is that called "Double-loop" learning, which entails restructuring of organizational norms, assumptions, and culture to be compatible with radical changes in organizational strategy (Daft, 1989).

Lawrence and Dyer have developed a more specific concept of organizational learning, readaptation, which seeks to balance efforts at efficiency and innovation (Daft, 1989). Those organizations best able to balance both requirements are likely to be the most successful. To sustain such balance, which is the essence of readaptation, organizations must learn. Learning in turn requires experimentation, environmental scanning, and learning and adjustment by organizational members.

Within the constraints of its environment, defined by information complexity and resource scarcity, an organization can utilize seven specific internal changes in an effort to become adaptive (Daft, 1989). Two of these strategies are similar to recommendations of TQM theorists. First is the option of making the entire membership of the organization aware of the broad purpose and values of the organization. This assists employees to help the organization learn and adapt. Second is the option of developing human

resource policies that encourage practices that facilitate involvement of employees. Both strategies are clearly reflective of the empowerment and involvement concepts of TQM.

A Micro Perspective

Similarly, proponents of TQM appear to share much in common with leading behavioral scientists. Numerous management texts provide a synopsis of various theories of managing organizations and individuals (Daft & Steers, 1986; Perrow, 1982) but for the purposes of this comparison David A. Whitsett (1980) appears to provide the most pertinent overview.

Whitsett reviewed the contributions of six prominent behavioral science theorists: Chris Argyris, Peter Drucker, Frederick Herzberg, Rensis Likert, Abraham Maslow, and, Douglas McGregor. His review of the work of each of these theorists led him to believe that there were certain underlying assumptions that integrated the work of all. He has stated these assumptions as follows:

> Assumption 1: The majority of employees have a desire to use a significant portion of their skills and abilities at work.
>
> Assumption 2: Most of our business and industrial organizations do a relatively poor job of offering their employees opportunities to use their skills and abilities.
>
> Assumption 3: Failure to utilize talents and skills often makes work a less satisfying experience than it could otherwise be.
>
> Assumption 4: This same failure makes the

organization less economically effective than it could otherwise be.

Assumption 5: Management's challenge, therefore, is to structure the work experience in such a way that both the employees' needs for satisfaction through the use of their abilities and the organization's need to be economically effective are met.

These assumptions are closely related to the principles laid out by Deming, Juran, and others who emphasize the need to foster self-control and self-direction in the workforce, the need to drive out fear from the organization, and the need to develop new relationships within organizations.

Whitsett concludes with a recommendation for "...an integrated, systematic organization development effort that makes use of a variety of concepts and change strategies offered and applied in concert, over time, with effective use of information-gathering tools" (1980, p. 204). There are many who would propose that TQM is the tool to accomplish this goal. Indeed the tools and techniques comprising TQM and the its foundation philosophies do not radically distinguish it from traditional organizational change and planning efforts. What is unique is the integrative nature of the concept, the freedom with which it chooses its techniques, and its willingness to involve more than just management in the change and planning efforts.

Chapter IV

Applications to American Health Care

Many of the challenges that face the Canadian health care industry are being faced to varying degrees by their American counterparts. While American health care has achieved some notable successes in the past several decades it is still criticized for its alleged shortcomings. Among these are increasing costs, long waits for service, the lack of coverage for a large group of citizens, perceived high rates of error, and evidence of fraud in segments of the health care industry (Albert, 1989; Berwick, Godfrey, & Roessner, 1990; Casalou, 1991; Sahney & Warden, in press).

There are three additional reasons, unique to the American experience, that are compelling the American health care industry to contemplate TQM. First, is the highly competitive nature of the American health care market (Berwick, Godfrey, & Roessner, 1990; Casurella, 1989; Milakovich, 1991). Traditional providers of acute care, hospitals and physicians, are finding their status being increasingly challenged by HMO's, preferred provider plans, and other alternative delivery systems. Governments and third party payors are demanding evidence of impact and efficiency of care in operations. Closely related to these demands is the close relationship that exists between health care costs and the competitive standing of American industry (Casurella, 1991; Couch, 1990; Deming, 1986; Walton, 1990). Due to the private enterprise nature of American health care, institutions have experienced more direct

pressure from corporate America for cost cutting measures than have Canadian health care organizations. For corporate America health care costs have become a significant cost factor in their end products and services. Facing recessionary pressures and intense competition all costs are being assessed in the most critical manner possible.

More importantly, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has decided to issue new standards requiring all hospital Chief Executive Officers to educate themselves on TQM (Casalou, 1991; Koska, 1991; McLaughlin & Kaluzny, 1990). With this announcement the JCAHO has explicitly recognized TQM as a more effective approach for assuring quality in hospitals. The new standards are scheduled for inclusion in the "Accreditation Manual" of JCAHO in 1992, with surveys being conducted in accordance with such regulations as of January 1, 1992.

Despite the presence of these environmental stimuli, health care in America has received TQM with the same degree of caution and skepticism as their industrial counterparts. There are unique reasons for such a guarded approach within the health care sector. First, there is a widespread perception that health care is different from the industrial and service sectors to which TQM has already been applied (Berwick, Godfrey, & Roessner, 1990; Couch, 1990; Walton, 1990). Many would suggest that the distinctive history, technology, and culture of the health care industry is a reason why an "industrial model" of quality would be inappropriately applied to hospitals.

Of even greater importance, however, would be the nature of the service provided, patient care, and the outcomes being striven for, quality patient care. There is strong resistance to the notion that philosophies, techniques, and methodologies applied to the production of automobiles and photocopiers have anything at all to do with caring for people requiring medical care (Berwick, Godfrey, & Roessner, 1990; Couch, 1990; Walton, 1990).

Proponents of the approach argue that applying TQM to health care should be concerned not so much with achieving identical outcomes for groups of patients but rather to ensure that the processes by which these individual patients receive care are subject to as little variation as possible (Berwick, Godfrey, & Roessner, 1990; Casalou, 1991). As government, payors, and consumers have become increasingly involved in assessing the efficiency and effectiveness of health care it has become difficult to justify the large degree of variation in types of care provided to patients experiencing conditions of equal severity, while at the same time claiming that all individuals received quality care. TQM provides a way to address these concerns.

Administrators and planners have also been reluctant to undertake a process that requires the degree of time, commitment, resources, and cultural change that TQM demands (McLaughlin & Kaluzny, 1990; Sahney & Warden, in press). From a review of the experience of their industrial counterparts all of these aspects of TQM seem daunting, particularly when the benefits of transferring the philosophy to health care appear unclear. TQM requires a

change in management that is not only uncomfortable but also threatening; it requires an investment of resources difficult to justify given current financial constraints and uncertain benefits; and, is likely to entail overcoming a great deal of resistance on the part of many groups in the organization. On the other hand, traditional means (Quality Assurance, government regulations, credentialling) appear incapable of addressing problems that health care is facing.

Another difficulty is the problem of implementing TQM, a process that calls for a high degree of teamwork, when faced with an existing organizational culture that places prime importance on the status of one's profession. It is particularly important to address the preeminent role of the physician in the traditional hierarchy of health care provision (Berwick, Godfrey, & Roessner, 1990). The most succinct review of the potential conflict between TQM and the professional model is provided by McLaughlin and Kaluzny (1990). In their analysis they establish a number of differences that exist between the two paradigms. These are listed below:

Professional	Versus	TQM
Individual Responsibilities		Collective Responsibilities
Professional Leadership		Managerial Leadership
Autonomy		Accountability
Administrative Authority		Participation

	McLaughlin & Kaluzny, (cont'd)	
Professional Authority		Participation
Goal Expectations		Performance and Process Expectations
Rigid Planning		Flexible Planning
Response to Complaints		Benchmarking
Retrospective Performance Appraisal		Concurrent Performance Appraisal
Quality Assurance		Continuous Improvement

McLaughlin and Kaluzny (1990), and others (Berwick, Godfrey, & Roessner, 1990; Merry, 1990), believe that, despite these areas of conflict, TQM can be successfully applied to health care and combined with the professional model in place in hospitals. This belief stems from the unquestioned perception that all professional groups, particularly physicians, have a higher personal commitment to the quality of the services they provide than do most individuals in industrial organizations. Furthermore, proponents believe that by emphasizing the benefits TQM can impart to patient care quality, and by developing an approach sensitive to the concerns of professionals, TQM can be successfully applied to health care.

Several health care organizations in the United States have chosen to test these perceived barriers to TQM. The most notable are Baxter Healthcare

Corporation, Atlantic City Medical Center, Harvard Community Health Plan, University of Michigan Medical Center, Rush-Presbyterian-St. Luke's Medical Center (Chicago), and Intermountain Health Care (Salt Lake City). The experiences of two such organizations will be discussed in an effort to review the course of TQM in the United States.

One of the first organizations to undertake a process of total quality management was Health Corporation of America (HCA) (Duncan, Fleming, & Gallati, 1991; Walton, 1990). HCA was considered to be a successful, well-managed health care provider. It currently operates 400 hospitals throughout the United States and in several other countries. Its earnings were the envy of many other similar organizations. HCA was not, however, immune to the environmental stresses that were affecting the American health care industry as a whole. In the mid 1980s HCA began to experience sharply diminished profits and pressure from government and payors to restrict expenditure growth. Existing means of responding to these pressures seemed inadequate, and HCA began to explore the potential of TQM in the late 1980s.

HCA began by reviewing the principles of TQM and applications that had taken place in the industrial sector (Duncan, Fleming, & Gallati, 1991; Walton, 1990). It soon discovered that efforts to buy a "package" for use in the organization were unlikely to be successful. Therefore, work was undertaken to construct their own package, a process that was completed in 1986. HCA determined that the process would begin as a pilot in a select number of

hospitals and only among those that participated voluntarily. HCA also adopted a decidedly top-down approach requiring the chief executive officer and his/her senior management team to become fully aware of and committed to the principles of TQM. This group would then become the organization's Quality Improvement Council with the mandate to charter and monitor quality improvement teams within the hospital.

HCA was deeply influenced by Deming's ideas of the absolute necessity of securing top management commitment if TQM was to succeed. HCA believes that only the voluntary commitment of the CEO and his/her senior management team can produce the magnitude of cultural change required. Without the visible commitment of this group TQM would not be seen as a priority by other members of the organization. In all hospitals within the HCA organization this visible commitment means regular presentations on quality during employee orientation sessions and instructing parts of the TQM courses offered in their organizations.

Within two years of adopting this approach HCA began to see results. It became evident that those hospitals involved in TQM were making significant gains, financially and in terms of increased initiative, morale, and decreased turnover among employees (Duncan, Fleming, & Gallati, 1991; Walton, 1990). Initial skepticism and resistance gave way to the belief that quality improvement could not be sacrificed to financial considerations. Indeed, many began to believe that TQM had become too valuable to ever give up.

Departmental and cross-functional teams began to flourish and tackled various problem areas, including clinical processes. This is not to say that the results were achieved painlessly. Management personnel who could not or would not commit to the new organizational philosophy left the organization. Indeed skeptics still exist within the organization and are perceived to have some value in keeping the organization's "feet" on the ground. The value of cross-functional teams has also been debated. While there exists the potential for barriers between areas to be broken down there also exists the strong potential for heightened levels of conflict between such areas.

The core of HCA's quality improvement effort has been a nine-step process-improvement method called FOCUS-PDCA (Duncan, Fleming, & Gallati, 1991; Walton, 1990). The acronym stands for the following:

Find a process to improve
Organize a team that knows the process
Clarify current knowledge of the process
Understand the causes of process variation
Select the process improvement

Plan the improvement and continue data collection
Do the improvement, data collection, and analysis
Check the results and lessons learned from the team effort
Act to hold the gain and to continue to improve the process

The emphasis was to be on process improvement rather than problem solving. The first was believed to lead to a more lasting and effective approach than the latter.

Another organization that became interested in the potential of TQM was

the Henry Ford Health System (HFHS). Like HCA, HFHS is a highly complex and diverse organization with services ranging from a 937 bed teaching and research facility to home health care and rehabilitation services. It has an annual operating budget of over $1 billion and a workforce of over 15,000.

HFHS initiated its TQM process in October of 1988 and, as at HCA, began by reviewing the principles of the various TQM gurus and assessing the experiences of other organizations, both in the industrial and health care sectors, of which HCA was one (Sahney & Warden, in press). Based on these investigative activities the chief executive officer authorized the TQM initiative but, as at HCA and other organizations, there were many skeptics. The necessity of the initiative was questioned and along with it the cost. A widespread belief existed that the organization was already practising what was called for by TQM; specifically managers, employees, and physicians all presumed that quality patient care had always been provided through their efforts. Despite resistance senior management believed that TQM had to be implemented as it had more to offer than other initiatives in improving services, improving the work environment and controlling expenditures (Sahney & Warden, in press).

HFHS worked closely with Dr. Berwick and HCA while developing its "Quality Management Process". Its TQM process, therefore, bears a great resemblance to HCA's process. The educational process in TQM began at the highest levels with quality awareness sessions and three and six day

educational sessions on the principles and tools of TQM. The response to these efforts was mixed with some individuals becoming readily committed to the effort while others thought the training redundant, a waste of time, or a passing trend. The rationale for this top-down approach (consistent with Dr. Deming's ideas) was that without solid top-management commitment to the process TQM was unlikely to be accepted or practised in the future by those at lower levels.

In keeping with the diverse and complex nature of HFHS, numerous Quality Steering Committees have been formed. Their purpose is to guide the implementation of TQM within each committee's sphere of responsibility. Each has been charged with taking a measured approach in implementing and developing TQM beginning with creating quality management awareness and learning, progressing to the development of a quality management framework (mission, vision, quality definition, and quality guidelines), facilitating the practice of TQM tools and techniques, developing customer awareness, and finally developing organization-wide quality awareness. This approach has limited progress in TQM to building awareness of the process.

In initiating the TQM process, HFHS has been guided by 12 key principles developed through their review of other industrial and health care applications (Sahney & Warden, in press). These are as follows:

1. Top Management Leadership
   - a must if the process is to succeed

2. Creating a Corporate Framework for Quality

- a mission, a vision, a definition, and guidelines for quality

3. Transformation of the Corporate Culture
   - a five to ten year transformation

4. Customer Focus
   - both internal and external customers

5. Process Focus
   - focus on process improvement rather than blaming people
   - utilize the FOCUS-PDCA cycle

6. Collaborative Approach to Process Improvement
   - involve employees in process improvement

7. Employee Education and Training
   - these are the key to a motivated work force

8. Learning by Practice and Teaching
   - management must practice and teach TQM, not professional educators

9. Benchmarking
   - assist in reaching higher performance levels

10. Quality Measurement and Statistical Reports at Every Level
    - must measure key quality characteristics of significance to the customer(s)

11. Recognition and Reward
    - to recognize and facilitate progress

12. Management Integration
    - TQM is no longer a special activity but the way of management

In continuing the process, HFHS has continued to focus on training attempting to focus equally on management, staff, and physicians. A conscious decision has been made to ensure cross-functional membership in

training groups to heighten awareness of the system-wide nature of the process. HFHS created a new Department of Quality Improvement Education and Resources in October of 1990 to facilitate the process organization-wide. Management evaluations are beginning to encompass progress made by an individual as a role model of TQM as well as the extent of progress that an individual's department makes in developing the process. Finally, the most recent strategic plan specifically recognized the need to develop a demonstrated commitment to excellence and to the process of continuous quality improvement (Sahney & Warden, in press).

HFHS does not yet have the track record of successes that HCA does but it does offer a number of similar lessons for those contemplating implementation of a TQM process (Sahney & Warden, in press). First, they point out that the transformation of the organization is not easy and that there are no shortcuts to the new culture. Related to this has been an underestimation of the magnitude of the change that management would have to undergo and the limited effect that three day training sessions would have on facilitating that change in isolation from other support mechanisms. HFHS has discovered the importance of managing the process in the early stages particularly with reference to the launching of quality improvement teams. Early success can facilitate the process while early failures can set it back immeasurably. It is believed important to emphasize that TQM will not be an add-on to management activities, but rather must become an integral part of every day

management. Finally, it is believed important to look for real progress in TQM (reduced costs, reduced times of processes) rather than just the symbols of such progress such as number of teams formed or number of surveys done.

An effort of decidedly larger scope, although certainly not of the same depth, was the National Demonstration Project (NDP) on Quality Improvement in Health Care (Berwick, Godfrey, & Roessner, 1990; Flynn-Siler & Garland, 1991; Walton, 1990). Directed by Dr. D. M. Berwick, this 1987 study paired twenty-one health care organizations with industrial counterparts, such as Xerox and Hewlett Packard, in an effort to assess the applicability of TQM to health care processes. The study was designed to last 8 months and thus was unable to assess the cultural transformation aspect of TQM. It suited itself better to an assessment of the applicability of the tools of TQM to the health care sector. The level of applicability was deemed to be dependent on the existing culture of the organization.

Quality improvement teams formed under NDP followed a five step process (Berwick, Godfrey, & Roessner, 1990):

1. A problem to address was selected
2. A team was organized to carry out the improvement project
3. The problem was diagnosed; understand the process, gather data, and search for root causes of the problem
4. Plan, test, and implement a remedy guided by the process knowledge

5. Check and continuously monitor performance taking remedial action as required

Many of the best suggestions for improvement projects were found to come from customers of the process under study. Over the course of the NDP many project teams turned repeatedly to internal customers for ideas and for help in redefining problems definitions (Berwick, Godfrey, & Roessner, 1990). There was, however, a tendency to address obvious problem areas rather than trying to discover areas of opportunity. This was believed to be related primarily to the ease of obtaining agreement on such problems and to getting on with a project.

Several key lessons in applying TQM were discovered in the NDP (Berwick, Godfrey, & Roessner, 1990). First, was the belief on the part of the researchers that quality improvement tools can work when applied to health care. In fact, TQM proponents and participants in NDP believe that health care may be less hostile to the process than other industries. In this assessment they are supported by others who emphasize the similarity between TQM and the scientific approach underlying modern medicine (Merry, 1990; Sahney & Warden, in press). Against this, however, must be weighed the fact that the NDP was only 8 months in duration. This is an insufficient time to assess the long-term impact of TQM in health care. The fact that clinical applications were addressed rarely, if at all, by quality improvement teams further diminishes the impact of the NDP results (Berwick, Godfrey, & Roessner, 1990; Flynn-Siler & Garland, 1991).

A second key lesson derived from the NDP was the value of cross-functional teams in improving health care processes. Without such teams it was supposed that barriers within organizations would not be broken down, that processes would not improve measurably, and that external customers would not be served as well as was possible.

Third, it was discovered that data useful for the application of quality improvement existed in abundance. The lack of TQM specific data is often cited as one reason why TQM implementation would be difficult in health care. NDP quality improvement teams did find that data collection techniques required modification to address some identified problems, but also determined that much of the data required for improvement initiatives already existed.

Fourth, the NDP discovered that efforts at quality improvement and the utilization of TQM techniques were well received. This was especially true of nursing staff. Explanations offered for this phenomenon were the previous training and mindset of the profession.

Fifth, the NDP discovered that costs of poor quality (waste, rework, excess complexity, variation, and unreliability) were every bit as excessive in health care as in industrial applications. The teams estimated that these costs comprised anywhere from 40% to 50% of current expenditures. This appeared to imply that substantial savings could be gained from the use of TQM tools.

The NDP reported that engaging physicians in TQM was difficult. This

difficulty appeared to stem from the unique relationship this group has with an organization, essentially operating as independent contractors. Aside from income lost through participation in training efforts and team activities, there is also, unfortunately, an inherent distrust of management initiatives that impact on medical practice (Merry, 1990). This was reflected in the limited application of TQM tools to clinical practices undertaken in the NDP (Berwick, Godfrey, & Roessner, 1990; Flynn-Siler & Garland, 1991). The success of TQM in health care was viewed as being limited if this barrier was not overcome. Recommendations provided by the NDP to overcome this barrier are to address fears of surveillance and inspection engendered by traditional Quality Assurance (QA) activities, reducing costs to physicians (either directly or otherwise) for participation in training and team activities, and focusing on processes that concern physicians either as supplier or as customers.

The NDP also discovered the need for extensive early and ongoing training. This was viewed as being necessary to facilitate the initial impetus to address problem situations and to encourage ongoing problem-solving when progress became more difficult.

Finally, it became critically apparent that the effort at a quality transformation of any organization was highly dependent on the leadership that was provided for it at the highest levels of the organization. While NDP researchers recognized the simplicity of the tools involved and the fact that such could be used and understood at any level of the organization, it was

clear that without top management support of such the process would not flourish. This was graphically illustrated by the fact that not all of the original 21 participants in the NDP could even complete the eight month pilot study.

CHAPTER V

Applications in Canadian Health Care

In this section a review will be undertaken of TQM processes at two hospitals located in Edmonton, Alberta; the Misericordia Hospital and the University of Alberta Hospitals. Despite sharing common location and service purpose, differences in organizational history, ownership, and structure has led to actual and perceived differences in organizational cultures. This has resulted in unique approaches to the implementation and development of TQM.

The first step in analyzing each hospital's experience with TQM is a chronological overview. The narrative is a synthesis of personal and telephone interviews and, where possible, is complemented by documentary evidence. A total of forty-three personal interviews were conducted across the two hospitals between January 1, 1992 and March 31, 1992. Participants included Board members, President, Vice-Presidents, administrative medical staff, staff physicians, union representatives, department Directors, Coordinators of quality improvement, and ex-managers of each organization. For the purposes of extracting as much detailed, and unbiased, information as possible the anonymity of all participants has been preserved by excluding references to particular interviews. Participant names have been noted in an attached appendix. A further forty telephone interviews of employees were conducted across the two hospitals, with an attempt being made to select staff from a variety of occupations. Those staff interviewed included representatives from

nursing, diagnostic services, and support services. In all cases none of the staff participants are identified for reasons noted above.

Each participant was asked a core set of questions (Appendix D) that attempted to determine the following: their understanding of TQM; when the concept was introduced at various levels in the hospitals; how TQM was introduced; the level of acceptance (or rejection) throughout the hospitals; perceived impact and value of TQM; and whether TQM implementation should be continued. Dissimilar questions were asked of each participant depending on answers given to the core questions and in relation to the position held, recognizing that each individual possesses unique perspectives on any organizational initiative.

In assessing the status of TQM two approaches were used. First, details on the roles of, and impacts on, six, broadly defined, constituent groups (Board, Senior Management, Middle Management, Staff, Unions, Physicians) within each hospital were reviewed. The basis for the groupings was determined by the perceived level of choice of actions available to influence the process or the degree of impact experienced by the particular group. Arguments could be made for more detailed segregation, for example Nursing and Support staff rather than staff in general, but in the researcher's opinion this would have provided no more insight. This provides an internal assessment of the TQM process in each hospital and allows other health care organizations to anticipate reactions in relation to any implementation they may decide to

undertake.

Second, the status of TQM in each hospital is assessed according to Deming's Fourteen Points. While possessing the unfortunate consequence of tempting inappropriate comparisons between the two hospitals, which is not the intent of this dissertation, the Points do provide a common, externally recognized framework against which both hospitals can be assessed. The choice of Deming's system betrays no bias towards a particular model but rather reflects the ease with which Deming's framework lends itself to this form of assessment attempt.

TQM at the Misericordia Hospital

The Chronological History

The Misericordia Hospital was founded in 1900 by the Soeurs de Misericorde. The association with the Misericordia Sisters was altered with the sale of the hospital to the Government of Alberta in 1976. The Government of Alberta leased the facility back to the Alberta Catholic Hospitals Foundation and the hospital continues to operate as a Catholic organization (Misericordia Hospital Philosophy, Mission Statement, Guiding Principles 1986).

The Misericordia has evolved into a 540 bed community hospital. The hospital provides a variety of inpatient, ambulatory, diagnostic, and therapeutic services. A substantial teaching focus is maintained through affiliation with the University of Alberta, community colleges, and technical

institutes. In addition, the Misericordia operates its own School of Nursing.

Prior to 1988, little served to distinguish the Misericordia from organizations of a similar size and function. A good working climate was maintained which resulted in good morale among staff. It was perceived as being a well-run organization, especially from a resource utilization perspective, where financial performance was of prime importance. Budgeting was an annual effort focused primarily on short-term goals. The Misericordia was considered a second echelon institution in comparison to tertiary teaching facilities in Edmonton.

The organizational structure of the Misericordia was traditional. It was a bureaucratic structure operating with a top-down, hierarchical management approach. A large number of management personnel were maintained with minimal spans of control. In retrospect, many of these positions were questioned with respect to their utility. An equally large number of units and departments also existed.

The hierarchical structure was complemented by an directive and paternalistic approach to staff-management relations. Senior management personnel, and even directors of departments, remained largely unknown to most staff. Staff input was similarly discouraged with changes made by management without due consideration being given to the participation of, or impact on, employees. Exceptions were evident, with some departments or units being considerably more participatory than others. The degree to which

this was true was dependent on the individual leadership of divisional directors, department heads, or unit managers, as well as on the mix of staff in a particular area. Staff frustration with this approach was heightened with increased resource constraints in the 1980s. While patient classification systems, developed to determine staffing levels, and other data collection instruments were in use, a perception existed that such indicators were of little significance when balanced against financial considerations.

The relationship between administration and the Medical Staff of the Misericordia in 1988, while still somewhat strained, was better than it had been in the early 1980s. Problem resolution was achieved through the appointment of permanent part-time clinical chiefs. These were individual physicians, receiving payment from the Misericordia, with designated responsibility over certain clinical program areas. Even by 1988, however, administration was still perceived as being disassociated from the core business of the hospital.

Change in this organizational culture began with the appointment of a new President in February of 1988. Both the new President and the Board of Directors identified a need for change in the culture of the organization. While uncertain of the form this change was to assume, various characteristics were deemed desirable, particularly those of empowerment, enthusiasm, and harmony. Consistent with these overriding concepts and uncertainty the prime goal at this time was to foster an atmosphere of change and openness in the hospital.

The first initiative in structuring a process for purposeful change was the appointment in July 1988 of a 10-member task force whose mandate was to conduct an internal evaluation of the hospital (Misericordia Hospital Cornerstones For Change, July 1989). The 1988 province-wide nurses' strike provided a strong impetus for this type of review and coincided with a need to understand the hospital's status at that time.

Composed of staff from varied disciplines and from several levels in the organization, the mandate of the task force was as follows:

1. To examine present hospital values, goals, and structure particularly at the point of delivery of patient care and services;

2. To determine if the organization [is] providing adequate support to staff in the delivery of quality service; and,

3. To recommend directions for change in each of these areas (Cornerstones For Change, July 1989).

The intent was to utilize the completed task force report as one of the building blocks for change at the Misericordia. The task force spent a year analysing the organization which included utilization of focus groups (comprised of 65 hospital staff members) and completion of a hospital-wide survey (involving 1,377 people). The focus groups and employee survey obtained feedback from all segments of the hospital including support staff, health care professional and technical staff, nurses, physicians, managers, students and volunteers.

This was a longer time frame than had been anticipated. However, the President did proceed with other change initiatives. Chief among these was

continuing to foster a sense of change and openness. The most concrete initial result of this effort was the creation of a monthly "President's Forum". The first of these was held on June 7, 1989. All staff of the Misericordia were free to attend these meetings to discuss any issue or concern they had. The agenda was set not by senior management but by those in attendance at the meetings. Examples of topics discussed at this first meeting included concerns over contracting out of Laundry services, summer bed closure plans, budgetary concerns, staff shortages, and an update on the Task Force report (Misericordia Hospital MisRecorder, June 15, 1989).

The Task Force Report was completed in July of 1989. The report identified five cornerstones for change: 1) the Misericordia develop and communicate a strong internal culture; 2) the focus of the hospital be on patient and family centred care; 3) staff be viewed as the greatest resource of the hospital; 4) individuals in the hospital be empowered to impact their work and the goals of the hospital; and, 5) an interdisciplinary team approach be adopted by the hospital (Misericordia Hospital Cornerstones For Change, July 1989).

The employee survey revealed a strong level of dissatisfaction with the focus of the Misericordia's "culture". A majority of staff were disconcerted with the hospital's focus on "hard values" (cost consciousness, procedure oriented, controlling) and advocated a shift to "soft values" (patient focused, people oriented, teamwork oriented, quality oriented). Specific

recommendations were as follows:

1. Define and communicate clear, simple, easily understood values.

2. Have all staff practice the values in the culture by translating them into daily actions.

3. Reinforce the culture by support of staff in their effort to live up to the stated values and through acknowledgement of work that is patient and service centred.

The remaining cornerstones of the report were reflective of these core recommendations.

Building on the Task Force report, and an already existing Mission Statement, a Strategic Planning initiative was next undertaken. Consistent with the process of developing the Task Force report and the Mission Statement, the Strategic Planning effort solicited input from all constituents of the Misericordia including staff, patients, and the broader community which the hospital served. The plan was completed in late 1989 and directed the hospital to focus increasingly on Outpatient Care/Ambulatory Care, Education and Health Promotion, and on Regional Planning.

At the beginning of 1990, therefore, three major documents were available to assist in charting the future of the Misericordia. Uncertainty still existed, however, as to how to translate these visions into reality in a way in which all constituent groups would commit. In early 1990, the President concluded that the hospital required a common focus that would justify and focus change efforts. He perceived "Quality" as being just such a point of common focus,

being a generic concept with which everyone could identify. The difficulty in utilizing this concept was recognized by the President, however, in that it appeared only to confirm the perceived focus of health care organizations, the provision of quality health care.

At this time other individuals, who were later to become key in the decision to proceed with TQM, began an association with the Misericordia. The Vice-President of Hospital Development, initially became associated with the Misericordia in February 1990 and was hired on later in the year. Having been involved with previous organizational change processes, her skills in facilitating cultural change from a behaviourial perspective were highly valued. The initial focus of this relationship centred on staff development, organizational assessment, and determining ways to alter the hospital's culture.

In February 1990 the future Coordinator of Hospital Development was also hired. His initial area of responsibility was staff development but his knowledge of TQM, gained by experience and education in the Far East, came to the attention of the President. It was the Coordinator that introduced the President to TQM and facilitated discussions on the concept at the President's Forum and other venues.

In conjunction with these arrivals, Unit Management Committees were being formed. Consistent with the 1989 Task Force report, the evolving mandate of these committees was to assume a greater degree of responsibility and accountability for management of designated nursing units.

Reflective of a still emerging understanding of TQM at this time, discussions and revision proceeded with upgrading Quality Assurance efforts. A concomitant measured pace of TQM implementation was similarly evident. However, there was a growing awareness on the part of the President as to the significance of TQM. For him, TQM provided the means to integrate all previous organizational change efforts and achieve the goals that had been set for the Misericordia.

Consistent with the Task Force report, it was determined by the senior management team that a Vision and Values Statement was essential to facilitate the commitment of all staff in the organization. A consultant, familiar to the Coordinator of Hospital Development, was contracted to facilitate the visioning exercise. The extensive experience he possessed with TQM applications, notably with Florida Power & Light, only became evident later in the process. With the assistance of this facilitator, the senior management group developed a Vision and Values statement in May 1990. The result is as follows:

> The Vision:
> We champion patient focused care as a progressive, people-oriented health care centre in partnership with our community.
>
> The Values:
> We put patients first in all things, strive to be the best in the health care programs we pursue, have the drive to constantly improve, create the environment where all people work together to achieve common goals, make decisions where the work gets done, operate our programs within the resources we obtain, value each other and the Misericordia (June 1990).

It was at this point that senior management concluded that TQM was required to achieve the hospital's Mission, address recommendations of the Task Force report, and live the Vision and the Values of the hospital. In retrospect, while many of the steps taken prior to May 1990 could be viewed as conscious attempts at facilitating the introduction of TQM to the Misericordia, it is clear that the commitment to TQM came only after much introspection and review. Chance engagement of individuals versed in TQM also facilitated commitment to the concept.

Senior management determined that the first step would be to prepare management and staff for change. In the spring and summer of 1990, "roadshows" stressing the need for change were undertaken. The sessions attempted to foster a belief in the necessity for change based on survival requirements, the new competitive nature of all service sectors, and the desire to continuously improve. In addition, three hour, seminar-like sessions were developed in an attempt to operationalize the Vision and Values statement for all employees. These sessions began in Fall 1990.

The next step in the Misericordia's TQM process was the creation of a Quality Steering Council (Misericordia Hospital MisRecorder, October 4, 1990). It was hoped that this would address a perceived need for a focal point or monitoring body for the desired change. The mandate of the Council was to determine future steps with respect to TQM, to provide leadership in a variety of activities, to review key information, and to evaluate the overall quality

improvement process. Membership was cross-functional and comprised four members from staff, four members from management, two from medical staff, and one volunteer. Membership was later expanded to include representation from students and interns. The group was initially chaired by the President. Other senior management and support services individuals participated on the Council either as ex-officio members or resource people.

During the summer of 1990 the Misericordia, in conjunction with their consultant, proceeded to develop skills courses, both for staff and management designed to facilitate the organizational change. While senior management believed it could impact on the environment into which TQM was being introduced, it was accepted that most management and staff required a new set of skills, tools, and techniques if their full potential in the new culture was to be realized. The result of these efforts was a five day program entitled "Leading for Continuous Improvement", designed to enhance leadership capabilities of management personnel, and a three day program entitled "Working Together", designed to improve skills of staff.

Educational facilitators, eventually to be called Master Trainers, were then trained. The advantage cited for developing this internal expertise was the familiarity that such individuals had with the Misericordia. Disadvantages associated with such an approach was a sacrifice of personal and work time of the individuals involved and a perceived lack of credibility they initially enjoyed from not being external experts in TQM. Selection criteria for the first

twelve Master Trainers was interest in TQM, personal credibility in the hospital, leadership skills, and effective communication skills. The first group was trained in November 1990 and included management personnel, nursing staff, technical staff (radiology), and a physician.

Concurrently two of the four unions at the Misericordia began their initial involvement in the TQM process. The local presidents of United Nurses of Alberta (UNA, Local 11), and the Health Sciences Association of Alberta (HSAA), became Master Trainers. Disagreement exists among those interviewed as to whether these individuals, and other union local presidents, were invited to participate in the process or demanded involvement. Regardless of the actual mechanics of involvement, the fact that two unions chose to participate and two chose not to illustrates the controversy surrounding this management initiative.

Characteristic of this controversy are the positions of UNA and the Canadian Union of Public Employees (CUPE) locals. UNA views its interest best served by being involved with the TQM process, ensuring that they achieve a complete understanding of TQM and management intentions. CUPE believes it is more important to consider the actions, versus the words, of management. Furthermore the dynamics of a TQM session are seen as having little relation to the true work environment of the hospital. Critical, however, is the fact that, while there was not full participation by every union, no union acted in direct opposition to the initiative.

The next step taken was the training of the Senior Management group in January 1991. The intent of these initial sessions was to facilitate common understanding of the TQM philosophy, to acquire skills required for the organizational change, and to develop a sense of team at the senior management level. Quality Council members and executive secretaries were also a part of this initial group. The process of achieving a common understanding of TQM is viewed as an ongoing challenge. "Leading for Continuous Improvement" sessions began on February 4, 1991, while "Working Together" sessions commenced on February 20, 1991. All training took place off-site.

In the period between 1988 and the present a new President had been hired and a strategic plan, task force report, vision and values statement, and skills courses in TQM had been developed. In the case of the latter two, presentations were proceeding according to plan. Senior management had committed themselves to a process of change with TQM as the mechanism for change. The unions were generally supportive of the initiative. A Quality Council had been established and internal resources in the form of Master Trainers were in the process of being developed. A generally positive attitude prevailed throughout the organization.

On February 20, 1991 a new variable was added to the organizational milieu; a proposed merger of the Misericordia and the Edmonton General (Grey Nuns) Hospital. The resulting merger, while consistent with the intent

of the Strategic Plan, did have an adverse impact on the TQM initiative. It resulted in a diversion of energy necessary for TQM development. Although progressing, TQM was, in fact, no further along than approximately one year. This was perceived as being a particularly sensitive time to be taking on another major initiative.

The first indication that TQM had become less of a priority in respect of the merger was the proportion of time senior management spent in championing the process. Particularly critical was the reduced presence of the President and the Vice-President, Human Resources who had been the most consistent proponents of TQM. The one member of senior management that remained fully engaged at the site was left to carry on administrative tasks, among them fostering TQM, which had previously been the responsibility of a total of five individuals. This gave rise to apprehension among managers and staff that progress gained in the TQM process was being compromised.

A complementary perception existed that senior management was beginning to take the Misericordia for granted in attempting to deal with issues at the Edmonton General (Grey Nuns) Hospital. Employees, managers in particular, at the Misericordia did not feel as secure in their TQM skill levels and knowledge base as senior management has assumed. Furthermore, a perception existed that the Misericordia was having to support the Edmonton General (Grey Nuns) Hospital, both financially and administratively.

With organizational restructuring resulting from the merger, additional

instability and insecurity were created among managers and staff. Uncertainty regarding the future of the organization, its various departments, and individual positions was heightened. It was apparent that redundancies between the two organizations would be eliminated, necessitating personnel reductions, particularly if economic efficiencies promised by the merger were to be realized. With such uncertainty, the coaching and supporting role foreseen for managers by TQM in relation to their staff was not forthcoming. Managers were more concerned about their own personal futures. Similarly, senior management was unable to provide coaching and support to their subordinates at a time when these actions would have been of benefit.

A consequence of both the lack of focus on TQM and the uncertainty created by the merger was the aggravation of certain performance problems. Specifically some managers, either in efforts to protect their positions or lacking knowledge and understanding of TQM, reverted to a traditional, directive management style to cope with the uncertainty. This slowed progress in TQM and frustrated staff who believed they were to be empowered in the new paradigm. The attention focused on the merger allowed these types of situations to continue longer than they might otherwise have. Only recently (Spring 1992) have such problem areas begun to be addressed by senior management.

More subtle evidence illustrating the adverse impact of the merger on the TQM process at the Misericordia was the noticeable decline of coverage of

TQM and its results in the "Misrecorder", the Misericordia's internal newsletter, and the problematic evolution of the Quality Council. While the Quality Council had always struggled to define its role in the TQM process it became clear from Council minutes that the level of uncertainty and introspection was even more pronounced after the merger announcement.

Not all of the effects of the merger were negative. The merger reinforced a view among many that TQM had benefits as a management philosophy. Experiences with the Edmonton General (Grey Nuns) Hospital forced a realization amongst managers and staff that, despite difficulties experienced, the Misericordia had progressed towards the goals it had set for itself in the Vision and Values and in the Cornerstones of Change documents. Furthermore, the attendant contact with individuals not versed in TQM focused Misericordia staff when it came to explaining, and defending, TQM. This process served to assist in developing an understanding of TQM.

The preoccupation of senior management with merger issues also required middle management to assume an increased scope of responsibilities. A view exists that this delegation of tasks has the potential to force managers, out of necessity, to rely on teamwork, at all levels, and on the skills of their staff. This premise is based on a belief that, in order to cope with their new responsibilities, managers will have to rely on, and put their trust in, the efforts of others.

Initiatives in TQM did proceed during the merger process, with initial

successes being reported as early as February 1991. For example, the Respiratory Department, where a quality improvement team involving personnel from respiratory, pharmacy, nursing and physicians had been assembled, had arrived at a decision to replace small volume nebulizers with Metered-Dose Inhalers (Misericordia Hospital MisRecorder, February 21, 1991). This was accomplished in what was considered to be an unusually short time of two weeks. The action resulted in improved drug delivery, an extension in the life of life support equipment, a reduction in the risk of infection, a reduction in respiratory therapist time requirements, a saving of several thousands of dollars, and a publication of the results in the National Journal for Respiratory Therapy.

An additional group of Master Trainers was recruited, from hospital staff, in March 1991 to supplement and replace previous individuals who could no longer commit the time necessary to conduct training courses. TQM courses continued and senior management made consistent efforts to attend these sessions to answer questions related to TQM or other subject matter that staff felt important. The benefits of such activity were significant improvements in communication and demonstration of the commitment of senior management to the TQM process.

Additional quality improvement projects had been initiated by the end of May 1991. Among them were improving: Cast Clinic waiting times; general signage in the hospital; buying practices of the hospital; the OR scheduling

system; discharge planning; portering, and; efforts to reduce duplication of patient information gathering. June 1991 saw the initiation of a major task force directed at involving physicians in the process of TQM. The group was composed of three physicians and three Master Trainers. By July 1991 when the President asked staff whether TQM was making a positive difference (Misericordia Hospital Misrecorder, August 8, 1991) he was being answered in the affirmative. Improved interaction and communication within the organization were cited as being the major benefits of the process. By the end of 1991 a third group of Master Trainers had been recruited and 200 major quality improvement initiatives had been proposed (Misericordia Hospital Misrecorder, November 28, 1991).

Having created an environment for change and established quality improvement skills training, the Misericordia entered a new phase in its TQM process; contracting with the Rydberg Levy Group in January 1992 to implement Performance Management (Misericordia Hospital Misrecorder, January 23, 1992). In the context of the change process at the Misericordia, Performance Management is a continuous and ongoing process that advocates a management style which focuses on results and feedback on performance (Daniels & Rosen, 1988). Broadly defined, Performance Management comprises: 1) Coaching For Leadership Performance; 2) Modification of the Human Resources System; and, 3) Planning For Clinical Performance.

Performance Management focuses on a number of areas including:

increasing the clarity of the hospital's direction; increasing awareness of the hospital's strategic direction; increasing the communication skills of management personnel; increasing understanding of key job responsibilities and expectations of superiors; increasing the level of objective feedback received; increasing the involvement of all employees; and, on recognizing people for doing the right things right (Misericordia Hospital Misrecorder, January 23, 1992). From the hospital's initial commitment to TQM, some had recognized the need for the performance and support mechanisms that Performance Management offered. However, the understanding of this need was not widespread, thus explaining the delay in implementation. Performance Management compliments the principles of TQM by advocating goal setting, data tracking, benchmarking, and employee involvement.

Despite its difficulties, by the end of March 1992 the Misericordia was being recognized as one of the leaders in the application of TQM principles in Canadian health care. This assessment is based on inquiries received from several health care organizations from across Canada. The Misericordia had passed 1,100 staff and 250 managers through 96 total sessions in TQM skills training. In addition, the Misericordia's partners in the merger, the Edmonton General Hospital and the Grey Nuns Hospital, were beginning their own TQM processes with the help of the Misericordia.

Future initiatives in TQM will be to focus on the areas of measurement, benchmarking, and results-focused (as opposed to a strict process focus)

improvement initiatives. Development and use of hospital-wide quality and utilization measures, department or unit quality and utilization measures, and a more active focus on competitive benchmarking are being planned. As with Performance Management, an earlier focus on measurement and benchmarking was advocated by some. By way of explanation it is proposed that a widespread and consistent view of the elements of TQM did not exist. Therefore, developing any measurement criteria would have been difficult. Only now is it believed that a better understanding of how to measure TQM, and other aspects of hospital performance, has been achieved implying a greater level of shared commitment to pursue this goal.

The Role of the Board

The most significant action taken by the Board of Directors of the Misericordia has been in recruiting a new President. In this effort the Board sought someone capable of energizing the hospital. The focus of the Board was not, at the time, specifically geared to developing and implementing TQM but they were amenable to and supportive of the concept once introduced to it by the President.

The second major role of the Board derives from this supportive stance. Subsequent to the Strategic Planning process, the Board regarded TQM as a means of refocusing on, and achieving, the goals and mission of the hospital. As with senior management, the Board views the development of the Vision and Values statement as a critical initiative. Through the Vision and Values

development process all significant players at the Misericordia were brought together. The outcome provided a common goal for all constituents to work towards and provided a foundation for decision-making. The quality improvement philosophy, putting patients first in all things, became the key for garnering Board support for change.

The Board of Directors has also attempted to resolve one of its perceived weaknesses; improving its level of understanding of TQM. Individual members have attended training courses in TQM. As an adjunct, time was committed in 1991 during their monthly meetings to sessions specifically tailored to TQM. Facilitated by the hospital's Master Trainers, these sessions covered such topics as "What Are The Key Aspects of Leadership in Managing For Quality?", "What Are The Strategies in Coping With Change?", and "How Does The Continuous Improvement Cycle Work?", among others. Through such efforts, the Board has developed an awareness of TQM to the extent that they believe their approach to governance duties has changed to reflect commitment to TQM.

The Role of Senior Management

The most critical role in the development of TQM has been that of the senior management group. They have led all elements of the hospital in this endeavour, including the Board of Directors. The progress of the TQM process has been directly related to the level of understanding of TQM by senior management, their commitment level to the process, and their ability to focus

time and resources on achieving the goals of TQM.

The initial impetus and continuing leadership has consistently come from the President. There is recognition throughout the hospital on the part of all individuals, including other senior management and the Board, that he has been the leader in the process. This recognition is such that concern is expressed that any change in the status of the President would directly manifest itself in loss of the TQM process.

The level of understanding of, and commitment to, TQM by senior management has varied over time. Initially, TQM was viewed as a means of institutionalizing positive attributes of the hospital. There was also a strong desire to displace a rigid, controlling structure and facilitate empowerment of employees in the hospital. The ability to translate these desires into a common vision of TQM has been one of the most difficult aspects of the process to address. This difficulty has been largely attributed to the varying experiences and perspectives that the senior management team brought to the organization from the outset.

To reiterate, the effect of the recent merger has been to disperse much of senior management across three hospital sites. The result has been a loss of momentum in TQM development. Senior management expresses an awareness of this impact, however, and has recognized a need for recommitting to TQM in a more visible manner, a manner more consistent with initial efforts in 1990. Coupled with an emphasis on performance

management and measurement, senior management believes TQM will continue to progress.

The Impact on Middle Management

Middle Management, a group comprising Directors through to front line supervisors, has been the group most threatened by the changes inherent in the TQM process. This threat exists for several reasons. First, in empowering staff, managers have been required to adopt new roles of coaching, facilitating, and supporting. This represents a significant departure from the traditional role of management particularly for those who have been practising a more directive approach for most of their careers.

A divergence of opinion exists between those interviewed over whether managers were adequately prepared for their changed role. Extensive efforts were made to communicate to all levels of the organization the necessity of developing new relationships between staff and management, and between areas of the hospital. Information sessions were organized for, and attended by, managers. More specific efforts to coach and inform individual managers as to the impact on their own work and relationships with their immediate subordinates were, however, lacking. This is an area that performance management appears to be designed to address.

Consensus exists, at all levels of the organization, that clarity of management expectations was an aspect of implementation that could have been improved. However, there also seems to be a consensus that adequate

opportunity was given to all managers to change their behaviours and performance to reflect the new realities. Furthermore, support mechanisms were in place for managers to access, such as the Master Trainers. From this perspective the fate of individual managers, therefore, is directly related to a willingness to access available supports rather than the unavailability of such mechanisms.

Several distinct sets of management reactions to TQM were identified by those interviewed. Some fully supported the effort, some remained skeptics, some choose not to support TQM and have left the hospital, and others have chosen to falsely support the effort, hoping it will eventually fail. A willingness to tolerate skeptics of TQM and associated concepts is evident. They are deemed valuable in providing a "reality check" for the hospital. However, such skepticism must be accompanied by adequate justification. Without this justification, skeptics are considered simply resistant to change. With respect to those who have chosen to leave the hospital there is a consensus that more than inability to adjust to TQM was responsible even though the process has been used to explain such turnover. Poor overall performance is readily offered as an alternate explanation.

The last group, perceived as being superficially committed to TQM, are viewed with a great deal of concern. They are perceived as having the potential to severely undermine the progress of TQM in their areas of responsibility. Examples of such detrimental effects are cited in the

Misericordia and the results of failing to deal with them were exacerbated by the lack of a performance management system and the focus on the merger. It is the expressed intention of performance management to provide some means of identifying champions of TQM and attenuating the influence of those superficially committed to the new organizational philosophy.

In direct contrast are notable examples of middle management success in adapting to TQM. This has been particularly true of those managers who have become Master Trainers. They have become leaders in their own areas and for the entire organization as well. This has become more evident given the impact of the merger with many corporate responsibilities being delegated to middle management.

Middle management has expressed concern that senior management does not accept variance in understanding and application of TQM between individual managers as a natural phenomenon. Understanding and application of TQM has progressed in stages; an initial commitment by some and, as time has progressed, additional managers have become committed. There is concern on the part of middle management that progressive commitment of this nature is viewed negatively. Many offer the alternate explanation that progress is impacted by certain practical constraints. Most important is achieving balance between TQM application and day-to-day responsibilities. Senior management, and others, argue that TQM is not an additional responsibility but rather should be part of the day-to-day routine of

management. Nevertheless, it is apparent that such integration will not happen quickly or easily.

The Impact on Staff

The initial reactions of staff mirrored those of their managers. There was guarded skepticism and tentativeness towards TQM. There was also concern over the timing of the initiative and its associated costs. Many staff, particularly nursing staff, questioned how hundreds of thousands of dollars could be justified for TQM; they believed a more direct impact on patient care could be made by providing more staff or dollars for patient-related activities. Accompanying these impressions were fears of increased workloads and job losses. To a degree, these fears stemmed from previous management initiatives whose results were not always positive for front-line staff.

The level of acceptance and success of TQM within various areas has been directly attributed to the commitment level of their manager. Thus, as varied as the success has been in middle management, there has been concomitant mixed reaction to, and success in, TQM at the staff level.

Segments of the staff population have identified many positive gains from TQM. Among these benefits have been improved morale, better level of cooperation, increased level of involvement in one's work, greater sense of participation and importance, increased level of communication with management and other staff, and the development of an organization-wide perspective. Conversely, other segments of the staff population have seen

limited or no impact in their work environment. Some perceive it as being a waste of time and money. Others express an opinion that little substantive change in management styles is evident in their areas and quickly point to solutions proposed by staff that have been dismissed by management.

Varied progress in TQM at the staff level has also been attributed to a continuing evolution of understanding of the process at the front-lines. Specifically, the concept of empowerment has proven a difficult idea to clearly communicate. As the roles of management have undergone change so have the roles of staff. Questions have arisen, from both staff and management, as to what decisions now become the responsibility of staff and what role managers play. Performance management and planned structural changes are viewed as assisting in clarifying this situation. The planned outcome is to eventually have staff that are more involved, responsible, and accountable for the operations of their specific departments or units.

The Union-Management Relationship

As noted earlier, there has been ambiguity in the response from the four unions within the Misericordia to the TQM initiative. The difference in approach, however, masks the one goal they all agree on, which is to monitor the TQM process and management's activities. Some have chosen to undertake this role from within the TQM process, hoping to influence it, while others are more content to assess the process and the impact on staff from a distance. Concerns exist on the part of the local union leadership, and among

staff, that any kind of participation in the TQM process could be compromising. Related to this is a fear that the ultimate intent of TQM, and management, is to splinter the union movement within health care.

Even the most recalcitrant with respect to TQM have a tentative willingness to admit that not all aspects of TQM are negative. The positive impact on staff's ability to communicate, discuss problems, and question arbitrary directives have been acknowledged by those interviewed. Balancing these positive results are concerns over discussions on peer reviews and peer hiring at the staff level. These activities are viewed as being inappropriately handled by staff because of a perceived lack of skill on the part of staff to carry out these duties and an inappropriate delegation of responsibility and accountability on the part of management.

The role of the unions in the TQM process is viewed by management from a variety of perspectives. Some acknowledge that the prime reason for the existence of unions has been poor management practices of the past. Thus, alleviating the typical adversarial nature of union-management relations is seen as requiring more effort on the part of management than on the part of unions. Others share similar views regarding the unions as a critical force to sharpen management's focus on TQM. Strong elements in management do, however, continue to view the unions and the collective bargaining agreements as impediments to establishing more cooperative relationships between management and staff. Unions are viewed as presenting barriers to the

reallocation of work, the development of teamwork, and the restructuring of the workplace that are viewed as critical elements in the continuing development of TQM.

Management appears willing to admit that unions will continue to exist as the legitimate representatives of employees. Management also acknowledges that the response of the unions to workplace restructuring, such as demands for job reclassification and salary reviews, are unlikely to be easily resolved. There does appear to be, however, a recognition that in order to achieve quality and efficiency in patient care, if that is truly the ultimate goal of TQM, such demands will have to be considered. Similarly, the unions are facing their own dilemma. After many years of demanding a greater voice in the decisions that affect their work, unions are apparently now being provided with this opportunity. With that offer, management is expecting the same degree of change on the part of the unions as is currently being attempted by management.

Physician Involvement

Physician's remain the least involved and least impacted group within the Misericordia. The majority of medical staff remain detached from the TQM process, view the effort with extreme skepticism or indifference, and believe money spent on the initiative would be better spent elsewhere. Efforts recently taken to encourage their participation in educational sessions have largely failed. One reason cited for this is the lack of hard, factual data on the

impact of TQM to date. Without concrete information, specifically on the benefits to patients, there has been an extreme reluctance on the part of most medical staff to sacrifice either their leisure time or clinical practice time to participate in the TQM process.

There have been certain exceptions to this perspective. Approximately two dozen physicians have attended all or part of the TQM courses offered, as of August 31, 1992, and two have become Master Trainers. The position of these individuals is that physicians need to have a say in any initiative that has the potential to affect their practice. Furthermore, they believe that only through the active participation and input of physicians will their colleagues be persuaded to commit to TQM. Additionally, these individuals regard TQM as a more palatable way to deal with the financial pressures facing health care than the traditional cost cutting measures of the past.

The fact remains that, for the most part, physicians remain distant from the process. As noted earlier, efforts have begun to directly focus on involving physicians. This is viewed as a critical step as most staff have progressed through TQM and physicians will increasingly be impacted by changes made in the hospital, or conversely will be in a position to thwart such change due to their lack of understanding of the process. Just as critical has become the expressed resentment on the part of staff that physicians have not been involved in the process and the perception that until such participation happens little in the way of substantial change will occur.

Process Status as Measured Against Deming's Fourteen Points

The Misericordia's ability to create constancy of purpose has been inhibited by its recent merger with the Edmonton General (Grey Nuns) Hospital. With senior management restructuring, and concentrating on issues related to the merger, there has been a lack of consistent focus on TQM. The focus of the organization as a whole has, therefore, been decidedly on short-term rather than long-term goals. This has been noted by senior management and efforts are currently under way to rectify this lapse.

Steps have been taken to adopt the new philosophy. There is less willingness to accept mistakes or defects in service. Extensive efforts have been initiated to remove barriers between management and staff and an extensive training program has been planned. Members of senior management remain committed to the TQM philosophy. However, there is some disillusionment being expressed at the slow pace of the transformation.

The Misericordia has progressed in ceasing dependence on mass inspection. Despite maintaining a Quality Assurance function within its structure there is no question that its role is primarily one of resource rather than of policing. There is an emphasis on utilizing data to discover root causes of problems rather than on dealing with symptoms that such causes generate. Counterbalancing this, however, it cannot be stated that the process of problem analysis and resolution focuses primarily on process (as opposed to people) issues in all situations.

There is little evidence to suggest that the Misericordia has ended the practice of awarding business on price tag alone. This particularly applies to the relationship with external suppliers. The lack of long-term relationships with suppliers appears to be driven primarily by a financial imperative. There are, however, some instances of external supplier involvement on internal committees of the hospital. The situation is somewhat more positive when consideration is given to relationships with staff. In a number of instances, decision-making on the part of management has expressly taken into account impact on staff. Equally evident, from an employee perspective, have been discussions centring around a desire for greater labour efficiency, implying review of nursing staff ratios and contracting out of services. In this case a commitment to positive staff relationships is perceived as being more difficult to reconcile.

The Misericordia has demonstrated a commitment to improving constantly and forever the system of production and service. Through its recently created Utilization Management department and Quality Assurance functions, efforts are being made to identify and standardize improvement opportunities. Furthermore, each identified improvement project has a requirement to establish measurement points through which the success of implemented solutions can be monitored over time. Most importantly has been the commitment of the Misericordia to involving patients and the public in some of its improvement projects, most notably concerning the construction of its

patient surveys and in its strategic planning process.

The Misericordia has been strong in instituting training. Its five and three day courses have been the subject of very positive feedback, both from internal and external participants. One noteworthy deficiency identified, however, has been the lack of structured skills application after course completion and the lack of refresher or follow-up courses.

Success has been mixed with respect to instituting leadership. This derives primarily from the host of merger and financial issues that have been the focus of the organization. Day-to-day management issues related to these forces has diminished the focus on leading staff. Conversely, there has been, and remains, a strong impetus to consider and act on the concerns and suggestions of staff.

A degree of success has been achieved with respect to the Misericordia's ability to drive out fear from the organization. This has been facilitated by the "open door" policy of senior management and the communication forums developed by the organization. Employees express a strong willingness to voice their concerns and believe that there is a much greater likelihood that such concerns will be acted upon than was the case in the past. This level of success is not, however, complete. Some staff still express discomfort with expressing their opinions and such is directly related to the management style of their direct superiors. Concerns of this nature have been heightened at all levels since the merger and the job insecurity that it has entailed.

A degree of success has been achieved in breaking down barriers between departments. This is partly attributable to the content of the TQM courses themselves, which identify the existence of internal customers. Additionally, by coincidence, the cross-functional nature of the courses has facilitated an awareness of the similar problems that all departments face and the impact that departments can have on each other. However, there has not been, to date, any significant cross-functional problem solving attempts aimed at resolving system-wide, as opposed to departmental, problems.

The Misericordia has eliminated slogans, exhortations, and targets for the workforce to a degree. Some have been developed along with and accepted by staff involved. Similarly, the elimination of numerical quotas has been addressed, primarily by the fact that the Quality Assurance department is not structured to assume a policing role. Financial pressures, however, continue to provide impetus for the maintenance of a budget focus.

Good progress has been made on removing barriers to pride of workmanship. This has been, and will continue to be, facilitated by the introduction of Performance Management, timely feedback to staff, open lines of communication as noted previously, and a management system responsive to customer concerns. Patients, public, and staff have been involved in various aspects of decision-making. For the most part, these have been sincere efforts to mitigate future problems by respecting user concerns.

As noted above, the Misericordia has not fared as well in instituting a

improvement process. Membership was cross-functional and comprised four members from staff, four members from management, two from medical staff, and one volunteer. Membership was later expanded to include representation from students and interns. The group was initially chaired by the President. Other senior management and support services individuals participated on the Council either as ex-officio members or resource people.

During the summer of 1990 the Misericordia, in conjunction with their consultant, proceeded to develop skills courses, both for staff and management designed to facilitate the organizational change. While senior management believed it could impact on the environment into which TQM was being introduced, it was accepted that most management and staff required a new set of skills, tools, and techniques if their full potential in the new culture was to be realized. The result of these efforts was a five day program entitled "Leading for Continuous Improvement", designed to enhance leadership capabilities of management personnel, and a three day program entitled "Working Together", designed to improve skills of staff.

Educational facilitators, eventually to be called Master Trainers, were then trained. The advantage cited for developing this internal expertise was the familiarity that such individuals had with the Misericordia. Disadvantages associated with such an approach was a sacrifice of personal and work time of the individuals involved and a perceived lack of credibility they initially enjoyed from not being external experts in TQM. Selection criteria for the first

twelve Master Trainers was interest in TQM, personal credibility in the hospital, leadership skills, and effective communication skills. The first group was trained in November 1990 and included management personnel, nursing staff, technical staff (radiology), and a physician.

Concurrently two of the four unions at the Misericordia began their initial involvement in the TQM process. The local presidents of United Nurses of Alberta (UNA, Local 11), and the Health Sciences Association of Alberta (HSAA), became Master Trainers. Disagreement exists among those interviewed as to whether these individuals, and other union local presidents, were invited to participate in the process or demanded involvement. Regardless of the actual mechanics of involvement, the fact that two unions chose to participate and two chose not to illustrates the controversy surrounding this management initiative.

Characteristic of this controversy are the positions of UNA and the Canadian Union of Public Employees (CUPE) locals. UNA views its interest best served by being involved with the TQM process, ensuring that they achieve a complete understanding of TQM and management intentions. CUPE believes it is more important to consider the actions, versus the words, of management. Furthermore the dynamics of a TQM session are seen as having little relation to the true work environment of the hospital. Critical, however, is the fact that, while there was not full participation by every union, no union acted in direct opposition to the initiative.

The next step taken was the training of the Senior Management group in January 1991. The intent of these initial sessions was to facilitate common understanding of the TQM philosophy, to acquire skills required for the organizational change, and to develop a sense of team at the senior management level. Quality Council members and executive secretaries were also a part of this initial group. The process of achieving a common understanding of TQM is viewed as an ongoing challenge. "Leading for Continuous Improvement" sessions began on February 4, 1991, while "Working Together" sessions commenced on February 20, 1991. All training took place off-site.

In the period between 1988 and the present a new President had been hired and a strategic plan, task force report, vision and values statement, and skills courses in TQM had been developed. In the case of the latter two, presentations were proceeding according to plan. Senior management had committed themselves to a process of change with TQM as the mechanism for change. The unions were generally supportive of the initiative. A Quality Council had been established and internal resources in the form of Master Trainers were in the process of being developed. A generally positive attitude prevailed throughout the organization.

On February 20, 1991 a new variable was added to the organizational milieu; a proposed merger of the Misericordia and the Edmonton General (Grey Nuns) Hospital. The resulting merger, while consistent with the intent

of the Strategic Plan, did have an adverse impact on the TQM initiative. It resulted in a diversion of energy necessary for TQM development. Although progressing, TQM was, in fact, no further along than approximately one year. This was perceived as being a particularly sensitive time to be taking on another major initiative.

The first indication that TQM had become less of a priority in respect of the merger was the proportion of time senior management spent in championing the process. Particularly critical was the reduced presence of the President and the Vice-President, Human Resources who had been the most consistent proponents of TQM. The one member of senior management that remained fully engaged at the site was left to carry on administrative tasks, among them fostering TQM, which had previously been the responsibility of a total of five individuals. This gave rise to apprehension among managers and staff that progress gained in the TQM process was being compromised.

A complementary perception existed that senior management was beginning to take the Misericordia for granted in attempting to deal with issues at the Edmonton General (Grey Nuns) Hospital. Employees, managers in particular, at the Misericordia did not feel as secure in their TQM skill levels and knowledge base as senior management has assumed. Furthermore, a perception existed that the Misericordia was having to support the Edmonton General (Grey Nuns) Hospital, both financially and administratively.

With organizational restructuring resulting from the merger, additional

instability and insecurity were created among managers and staff. Uncertainty regarding the future of the organization, its various departments, and individual positions was heightened. It was apparent that redundancies between the two organizations would be eliminated, necessitating personnel reductions, particularly if economic efficiencies promised by the merger were to be realized. With such uncertainty, the coaching and supporting role foreseen for managers by TQM in relation to their staff was not forthcoming. Managers were more concerned about their own personal futures. Similarly, senior management was unable to provide coaching and support to their subordinates at a time when these actions would have been of benefit.

A consequence of both the lack of focus on TQM and the uncertainty created by the merger was the aggravation of certain performance problems. Specifically some managers, either in efforts to protect their positions or lacking knowledge and understanding of TQM, reverted to a traditional, directive management style to cope with the uncertainty. This slowed progress in TQM and frustrated staff who believed they were to be empowered in the new paradigm. The attention focused on the merger allowed these types of situations to continue longer than they might otherwise have. Only recently (Spring 1992) have such problem areas begun to be addressed by senior management.

More subtle evidence illustrating the adverse impact of the merger on the TQM process at the Misericordia was the noticeable decline of coverage of

TQM and its results in the "Misrecorder", the Misericordia's internal newsletter, and the problematic evolution of the Quality Council. While the Quality Council had always struggled to define its role in the TQM process it became clear from Council minutes that the level of uncertainty and introspection was even more pronounced after the merger announcement.

Not all of the effects of the merger were negative. The merger reinforced a view among many that TQM had benefits as a management philosophy. Experiences with the Edmonton General (Grey Nuns) Hospital forced a realization amongst managers and staff that, despite difficulties experienced, the Misericordia had progressed towards the goals it had set for itself in the Vision and Values and in the Cornerstones of Change documents. Furthermore, the attendant contact with individuals not versed in TQM focused Misericordia staff when it came to explaining, and defending, TQM. This process served to assist in developing an understanding of TQM.

The preoccupation of senior management with merger issues also required middle management to assume an increased scope of responsibilities. A view exists that this delegation of tasks has the potential to force managers, out of necessity, to rely on teamwork, at all levels, and on the skills of their staff. This premise is based on a belief that, in order to cope with their new responsibilities, managers will have to rely on, and put their trust in, the efforts of others.

Initiatives in TQM did proceed during the merger process, with initial

successes being reported as early as February 1991. For example, the Respiratory Department, where a quality improvement team involving personnel from respiratory, pharmacy, nursing and physicians had been assembled, had arrived at a decision to replace small volume nebulizers with Metered-Dose Inhalers (Misericordia Hospital MisRecorder, February 21, 1991). This was accomplished in what was considered to be an unusually short time of two weeks. The action resulted in improved drug delivery, an extension in the life of life support equipment, a reduction in the risk of infection, a reduction in respiratory therapist time requirements, a saving of several thousands of dollars, and a publication of the results in the National Journal for Respiratory Therapy.

An additional group of Master Trainers was recruited, from hospital staff, in March 1991 to supplement and replace previous individuals who could no longer commit the time necessary to conduct training courses. TQM courses continued and senior management made consistent efforts to attend these sessions to answer questions related to TQM or other subject matter that staff felt important. The benefits of such activity were significant improvements in communication and demonstration of the commitment of senior management to the TQM process.

Additional quality improvement projects had been initiated by the end of May 1991. Among them were improving: Cast Clinic waiting times; general signage in the hospital; buying practices of the hospital; the OR scheduling

system; discharge planning; portering, and; efforts to reduce duplication of patient information gathering. June 1991 saw the initiation of a major task force directed at involving physicians in the process of TQM. The group was composed of three physicians and three Master Trainers. By July 1991 when the President asked staff whether TQM was making a positive difference (Misericordia Hospital Misrecorder, August 8, 1991) he was being answered in the affirmative. Improved interaction and communication within the organization were cited as being the major benefits of the process. By the end of 1991 a third group of Master Trainers had been recruited and 200 major quality improvement initiatives had been proposed (Misericordia Hospital Misrecorder, November 28, 1991).

Having created an environment for change and established quality improvement skills training, the Misericordia entered a new phase in its TQM process; contracting with the Rydberg Levy Group in January 1992 to implement Performance Management (Misericordia Hospital Misrecorder, January 23, 1992). In the context of the change process at the Misericordia, Performance Management is a continuous and ongoing process that advocates a management style which focuses on results and feedback on performance (Daniels & Rosen, 1988). Broadly defined, Performance Management comprises: 1) Coaching For Leadership Performance; 2) Modification of the Human Resources System; and, 3) Planning For Clinical Performance.

Performance Management focuses on a number of areas including:

increasing the clarity of the hospital's direction; increasing awareness of the hospital's strategic direction; increasing the communication skills of management personnel; increasing understanding of key job responsibilities and expectations of superiors; increasing the level of objective feedback received; increasing the involvement of all employees; and, on recognizing people for doing the right things right (Misericordia Hospital Misrecorder, January 23, 1992). From the hospital's initial commitment to TQM, some had recognized the need for the performance and support mechanisms that Performance Management offered. However, the understanding of this need was not widespread, thus explaining the delay in implementation. Performance Management compliments the principles of TQM by advocating goal setting, data tracking, benchmarking, and employee involvement.

Despite its difficulties, by the end of March 1992 the Misericordia was being recognized as one of the leaders in the application of TQM principles in Canadian health care. This assessment is based on inquiries received from several health care organizations from across Canada. The Misericordia had passed 1,100 staff and 250 managers through 96 total sessions in TQM skills training. In addition, the Misericordia's partners in the merger, the Edmonton General Hospital and the Grey Nuns Hospital, were beginning their own TQM processes with the help of the Misericordia.

Future initiatives in TQM will be to focus on the areas of measurement, benchmarking, and results-focused (as opposed to a strict process focus)

improvement initiatives. Development and use of hospital-wide quality and utilization measures, department or unit quality and utilization measures, and a more active focus on competitive benchmarking are being planned. As with Performance Management, an earlier focus on measurement and benchmarking was advocated by some. By way of explanation it is proposed that a widespread and consistent view of the elements of TQM did not exist. Therefore, developing any measurement criteria would have been difficult. Only now is it believed that a better understanding of how to measure TQM, and other aspects of hospital performance, has been achieved implying a greater level of shared commitment to pursue this goal.

The Role of the Board

The most significant action taken by the Board of Directors of the Misericordia has been in recruiting a new President. In this effort the Board sought someone capable of energizing the hospital. The focus of the Board was not, at the time, specifically geared to developing and implementing TQM but they were amenable to and supportive of the concept once introduced to it by the President.

The second major role of the Board derives from this supportive stance. Subsequent to the Strategic Planning process, the Board regarded TQM as a means of refocusing on, and achieving, the goals and mission of the hospital. As with senior management, the Board views the development of the Vision and Values statement as a critical initiative. Through the Vision and Values

development process all significant players at the Misericordia were brought together. The outcome provided a common goal for all constituents to work towards and provided a foundation for decision-making. The quality improvement philosophy, putting patients first in all things, became the key for garnering Board support for change.

The Board of Directors has also attempted to resolve one of its perceived weaknesses; improving its level of understanding of TQM. Individual members have attended training courses in TQM. As an adjunct, time was committed in 1991 during their monthly meetings to sessions specifically tailored to TQM. Facilitated by the hospital's Master Trainers, these sessions covered such topics as "What Are The Key Aspects of Leadership in Managing For Quality?", "What Are The Strategies in Coping With Change?", and "How Does The Continuous Improvement Cycle Work?", among others. Through such efforts, the Board has developed an awareness of TQM to the extent that they believe their approach to governance duties has changed to reflect commitment to TQM.

The Role of Senior Management

The most critical role in the development of TQM has been that of the senior management group. They have led all elements of the hospital in this endeavour, including the Board of Directors. The progress of the TQM process has been directly related to the level of understanding of TQM by senior management, their commitment level to the process, and their ability to focus

time and resources on achieving the goals of TQM.

The initial impetus and continuing leadership has consistently come from the President. There is recognition throughout the hospital on the part of all individuals, including other senior management and the Board, that he has been the leader in the process. This recognition is such that concern is expressed that any change in the status of the President would directly manifest itself in loss of the TQM process.

The level of understanding of, and commitment to, TQM by senior management has varied over time. Initially, TQM was viewed as a means of institutionalizing positive attributes of the hospital. There was also a strong desire to displace a rigid, controlling structure and facilitate empowerment of employees in the hospital. The ability to translate these desires into a common vision of TQM has been one of the most difficult aspects of the process to address. This difficulty has been largely attributed to the varying experiences and perspectives that the senior management team brought to the organization from the outset.

To reiterate, the effect of the recent merger has been to disperse much of senior management across three hospital sites. The result has been a loss of momentum in TQM development. Senior management expresses an awareness of this impact, however, and has recognized a need for recommitting to TQM in a more visible manner, a manner more consistent with initial efforts in 1990. Coupled with an emphasis on performance

management and measurement, senior management believes TQM will continue to progress.

The Impact on Middle Management

Middle Management, a group comprising Directors through to front line supervisors, has been the group most threatened by the changes inherent in the TQM process. This threat exists for several reasons. First, in empowering staff, managers have been required to adopt new roles of coaching, facilitating, and supporting. This represents a significant departure from the traditional role of management particularly for those who have been practising a more directive approach for most of their careers.

A divergence of opinion exists between those interviewed over whether managers were adequately prepared for their changed role. Extensive efforts were made to communicate to all levels of the organization the necessity of developing new relationships between staff and management, and between areas of the hospital. Information sessions were organized for, and attended by, managers. More specific efforts to coach and inform individual managers as to the impact on their own work and relationships with their immediate subordinates were, however, lacking. This is an area that performance management appears to be designed to address.

Consensus exists, at all levels of the organization, that clarity of management expectations was an aspect of implementation that could have been improved. However, there also seems to be a consensus that adequate

opportunity was given to all managers to change their behaviours and performance to reflect the new realities. Furthermore, support mechanisms were in place for managers to access, such as the Master Trainers. From this perspective the fate of individual managers, therefore, is directly related to a willingness to access available supports rather than the unavailability of such mechanisms.

Several distinct sets of management reactions to TQM were identified by those interviewed. Some fully supported the effort, some remained skeptics, some choose not to support TQM and have left the hospital, and others have chosen to falsely support the effort, hoping it will eventually fail. A willingness to tolerate skeptics of TQM and associated concepts is evident. They are deemed valuable in providing a "reality check" for the hospital. However, such skepticism must be accompanied by adequate justification. Without this justification, skeptics are considered simply resistant to change. With respect to those who have chosen to leave the hospital there is a consensus that more than inability to adjust to TQM was responsible even though the process has been used to explain such turnover. Poor overall performance is readily offered as an alternate explanation.

The last group, perceived as being superficially committed to TQM, are viewed with a great deal of concern. They are perceived as having the potential to severely undermine the progress of TQM in their areas of responsibility. Examples of such detrimental effects are cited in the

Misericordia and the results of failing to deal with them were exacerbated by the lack of a performance management system and the focus on the merger. It is the expressed intention of performance management to provide some means of identifying champions of TQM and attenuating the influence of those superficially committed to the new organizational philosophy.

In direct contrast are notable examples of middle management success in adapting to TQM. This has been particularly true of those managers who have become Master Trainers. They have become leaders in their own areas and for the entire organization as well. This has become more evident given the impact of the merger with many corporate responsibilities being delegated to middle management.

Middle management has expressed concern that senior management does not accept variance in understanding and application of TQM between individual managers as a natural phenomenon. Understanding and application of TQM has progressed in stages; an initial commitment by some and, as time has progressed, additional managers have become committed. There is concern on the part of middle management that progressive commitment of this nature is viewed negatively. Many offer the alternate explanation that progress is impacted by certain practical constraints. Most important is achieving balance between TQM application and day-to-day responsibilities. Senior management, and others, argue that TQM is not an additional responsibility but rather should be part of the day-to-day routine of

management. Nevertheless, it is apparent that such integration will not happen quickly or easily.

The Impact on Staff

The initial reactions of staff mirrored those of their managers. There was guarded skepticism and tentativeness towards TQM. There was also concern over the timing of the initiative and its associated costs. Many staff, particularly nursing staff, questioned how hundreds of thousands of dollars could be justified for TQM; they believed a more direct impact on patient care could be made by providing more staff or dollars for patient-related activities. Accompanying these impressions were fears of increased workloads and job losses. To a degree, these fears stemmed from previous management initiatives whose results were not always positive for front-line staff.

The level of acceptance and success of TQM within various areas has been directly attributed to the commitment level of their manager. Thus, as varied as the success has been in middle management, there has been concomitant mixed reaction to, and success in, TQM at the staff level.

Segments of the staff population have identified many positive gains from TQM. Among these benefits have been improved morale, better level of cooperation, increased level of involvement in one's work, greater sense of participation and importance, increased level of communication with management and other staff, and the development of an organization-wide perspective. Conversely, other segments of the staff population have seen

limited or no impact in their work environment. Some perceive it as being a waste of time and money. Others express an opinion that little substantive change in management styles is evident in their areas and quickly point to solutions proposed by staff that have been dismissed by management.

Varied progress in TQM at the staff level has also been attributed to a continuing evolution of understanding of the process at the front-lines. Specifically, the concept of empowerment has proven a difficult idea to clearly communicate. As the roles of management have undergone change so have the roles of staff. Questions have arisen, from both staff and management, as to what decisions now become the responsibility of staff and what role managers play. Performance management and planned structural changes are viewed as assisting in clarifying this situation. The planned outcome is to eventually have staff that are more involved, responsible, and accountable for the operations of their specific departments or units.

The Union-Management Relationship

As noted earlier, there has been ambiguity in the response from the four unions within the Misericordia to the TQM initiative. The difference in approach, however, masks the one goal they all agree on, which is to monitor the TQM process and management's activities. Some have chosen to undertake this role from within the TQM process, hoping to influence it, while others are more content to assess the process and the impact on staff from a distance. Concerns exist on the part of the local union leadership, and among

staff, that any kind of participation in the TQM process could be compromising. Related to this is a fear that the ultimate intent of TQM, and management, is to splinter the union movement within health care.

Even the most recalcitrant with respect to TQM have a tentative willingness to admit that not all aspects of TQM are negative. The positive impact on staff's ability to communicate, discuss problems, and question arbitrary directives have been acknowledged by those interviewed. Balancing these positive results are concerns over discussions on peer reviews and peer hiring at the staff level. These activities are viewed as being inappropriately handled by staff because of a perceived lack of skill on the part of staff to carry out these duties and an inappropriate delegation of responsibility and accountability on the part of management.

The role of the unions in the TQM process is viewed by management from a variety of perspectives. Some acknowledge that the prime reason for the existence of unions has been poor management practices of the past. Thus, alleviating the typical adversarial nature of union-management relations is seen as requiring more effort on the part of management than on the part of unions. Others share similar views regarding the unions as a critical force to sharpen management's focus on TQM. Strong elements in management do, however, continue to view the unions and the collective bargaining agreements as impediments to establishing more cooperative relationships between management and staff. Unions are viewed as presenting barriers to the

reallocation of work, the development of teamwork, and the restructuring of the workplace that are viewed as critical elements in the continuing development of TQM.

Management appears willing to admit that unions will continue to exist as the legitimate representatives of employees. Management also acknowledges that the response of the unions to workplace restructuring, such as demands for job reclassification and salary reviews, are unlikely to be easily resolved. There does appear to be, however, a recognition that in order to achieve quality and efficiency in patient care, if that is truly the ultimate goal of TQM, such demands will have to be considered. Similarly, the unions are facing their own dilemma. After many years of demanding a greater voice in the decisions that affect their work, unions are apparently now being provided with this opportunity. With that offer, management is expecting the same degree of change on the part of the unions as is currently being attempted by management.

Physician Involvement

Physician's remain the least involved and least impacted group within the Misericordia. The majority of medical staff remain detached from the TQM process, view the effort with extreme skepticism or indifference, and believe money spent on the initiative would be better spent elsewhere. Efforts recently taken to encourage their participation in educational sessions have largely failed. One reason cited for this is the lack of hard, factual data on the

impact of TQM to date. Without concrete information, specifically on the benefits to patients, there has been an extreme reluctance on the part of most medical staff to sacrifice either their leisure time or clinical practice time to participate in the TQM process.

There have been certain exceptions to this perspective. Approximately two dozen physicians have attended all or part of the TQM courses offered, as of August 31, 1992, and two have become Master Trainers. The position of these individuals is that physicians need to have a say in any initiative that has the potential to affect their practice. Furthermore, they believe that only through the active participation and input of physicians will their colleagues be persuaded to commit to TQM. Additionally, these individuals regard TQM as a more palatable way to deal with the financial pressures facing health care than the traditional cost cutting measures of the past.

The fact remains that, for the most part, physicians remain distant from the process. As noted earlier, efforts have begun to directly focus on involving physicians. This is viewed as a critical step as most staff have progressed through TQM and physicians will increasingly be impacted by changes made in the hospital, or conversely will be in a position to thwart such change due to their lack of understanding of the process. Just as critical has become the expressed resentment on the part of staff that physicians have not been involved in the process and the perception that until such participation happens little in the way of substantial change will occur.

Process Status as Measured Against Deming's Fourteen Points

The Misericordia's ability to create constancy of purpose has been inhibited by its recent merger with the Edmonton General (Grey Nuns) Hospital. With senior management restructuring, and concentrating on issues related to the merger, there has been a lack of consistent focus on TQM. The focus of the organization as a whole has, therefore, been decidedly on short-term rather than long-term goals. This has been noted by senior management and efforts are currently under way to rectify this lapse.

Steps have been taken to adopt the new philosophy. There is less willingness to accept mistakes or defects in service. Extensive efforts have been initiated to remove barriers between management and staff and an extensive training program has been planned. Members of senior management remain committed to the TQM philosophy. However, there is some disillusionment being expressed at the slow pace of the transformation.

The Misericordia has progressed in ceasing dependence on mass inspection. Despite maintaining a Quality Assurance function within its structure there is no question that its role is primarily one of resource rather than of policing. There is an emphasis on utilizing data to discover root causes of problems rather than on dealing with symptoms that such causes generate. Counterbalancing this, however, it cannot be stated that the process of problem analysis and resolution focuses primarily on process (as opposed to people) issues in all situations.

There is little evidence to suggest that the Misericordia has ended the practice of awarding business on price tag alone. This particularly applies to the relationship with external suppliers. The lack of long-term relationships with suppliers appears to be driven primarily by a financial imperative. There are, however, some instances of external supplier involvement on internal committees of the hospital. The situation is somewhat more positive when consideration is given to relationships with staff. In a number of instances, decision-making on the part of management has expressly taken into account impact on staff. Equally evident, from an employee perspective, have been discussions centring around a desire for greater labour efficiency, implying review of nursing staff ratios and contracting out of services. In this case a commitment to positive staff relationships is perceived as being more difficult to reconcile.

The Misericordia has demonstrated a commitment to improving constantly and forever the system of production and service. Through its recently created Utilization Management department and Quality Assurance functions, efforts are being made to identify and standardize improvement opportunities. Furthermore, each identified improvement project has a requirement to establish measurement points through which the success of implemented solutions can be monitored over time. Most importantly has been the commitment of the Misericordia to involving patients and the public in some of its improvement projects, most notably concerning the construction of its

patient surveys and in its strategic planning process.

The Misericordia has been strong in instituting training. Its five and three day courses have been the subject of very positive feedback, both from internal and external participants. One noteworthy deficiency identified, however, has been the lack of structured skills application after course completion and the lack of refresher or follow-up courses.

Success has been mixed with respect to instituting leadership. This derives primarily from the host of merger and financial issues that have been the focus of the organization. Day-to-day management issues related to these forces has diminished the focus on leading staff. Conversely, there has been, and remains, a strong impetus to consider and act on the concerns and suggestions of staff.

A degree of success has been achieved with respect to the Misericordia's ability to drive out fear from the organization. This has been facilitated by the "open door" policy of senior management and the communication forums developed by the organization. Employees express a strong willingness to voice their concerns and believe that there is a much greater likelihood that such concerns will be acted upon than was the case in the past. This level of success is not, however, complete. Some staff still express discomfort with expressing their opinions and such is directly related to the management style of their direct superiors. Concerns of this nature have been heightened at all levels since the merger and the job insecurity that it has entailed.

A degree of success has been achieved in breaking down barriers between departments. This is partly attributable to the content of the TQM courses themselves, which identify the existence of internal customers. Additionally, by coincidence, the cross-functional nature of the courses has facilitated an awareness of the similar problems that all departments face and the impact that departments can have on each other. However, there has not been, to date, any significant cross-functional problem solving attempts aimed at resolving system-wide, as opposed to departmental, problems.

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Good progress has been made on removing barriers to pride of workmanship. This has been, and will continue to be, facilitated by the introduction of Performance Management, timely feedback to staff, open lines of communication as noted previously, and a management system responsive to customer concerns. Patients, public, and staff have been involved in various aspects of decision-making. For the most part, these have been sincere efforts to mitigate future problems by respecting user concerns.

As noted above, the Misericordia has not fared as well in instituting a

vigorous program of education and retraining. Structured application and follow-up courses to the three and five day sessions is a need identified by many management and staff. The inability to respond to these needs to date stems from lack of funds and lack of realization that such would be necessary. However, there is an apparent strong commitment to employees as assets of the organization, essential to its long-term success.

Efforts continue to take action to accomplish the transformation. Merger issues have noticeably deflected time of senior management and other resources away from development. Necessary changes in key systems, particularly with respect to Human Resource systems (recruitment, performance evaluation) have not taken place. This has been realized and efforts are ongoing to refocus on TQM. Organizational restructuring is being initiated to establish clear accountabilities and communication channels confused with the recent merger.

The overall status of TQM at the Misericordia as of mid-1992, therefore, is mixed. Success in application of the principles and techniques of the concept has been enjoyed in pockets. Where this has been so the progress has been largely due to the individual efforts and leadership of department and unit managers. The merger has had the effect of distracting attention from TQM implementation. This only partly explains the inconsistent leadership on the part of senior management in the process; the rest of the explanation is found in an underestimation of the time commitment necessary to drive the process

and in achieving an understanding of TQM itself. The lack of complementary human resource systems and a organizational structure based on TQM principles has also inhibited implementation to date.

TQM at the University of Alberta Hospitals

The Chronological History

The University of Alberta Hospitals traces its roots to the early 1920's. Comprising the Walter C. Mackenzie Health Sciences Centre, Aberhart Centre, Mewburn Veteran Centre, University Hospitals Hostel, University Hospitals School of Nursing, and the University Hospitals Patient Support Centre, the Hospitals is a hospital of 1,355 beds and approximately 6,000 employees. An additional level of complexity is added through association with the University of Alberta.

The Hospitals offers a wide range of patient care and health promotion services, including the development and delivery of highly specialized tertiary care programs. As an academic medical facility, one of its main goals, in partnership with the University of Alberta and other academic institutions, is the advancement of the health sciences. In conjunction with these organizations of learning, the Hospitals develops and provides educational programs in a variety of health disciplines and actively promotes, conducts, and applies health care research.

In 1988 the Hospitals enjoyed a reputation of being a premiere teaching

facility. There was a belief, however, even within the hospital, that this reputation was not always or consistently deserved. Similarly, the level of morale among staff and physicians was varied. The financial focus of the facility was perceived as varying from stringent to complacent; consensus exists among those interviewed that the Hospitals did not suffer the same degree of financial pressure as other hospitals did. The Hospitals was able to continue operating a number of highly successful programs and maintained, in general, its reputation as a prestigious centre of patient care and medical learning.

Characteristic of large, bureaucratic organizations the Hospitals was very hierarchical with numerous levels in its structure. In retrospect, a perception exists among those interviewed that many of these levels of management were questionable with regards to their value-added content. Correspondingly, divisions were perceived to exist among functional areas. These factors, associated with the prevailing cultural milieu of the time, resulted in a lack of collaboration and communication between managers and divisions and posed difficulties in accomplishing goals or tasks in a timely manner.

Staff-management relations were characterized by top-down directives and adversarial relations between unions and management. A perception of a split between management and staff existed that manifested itself most visibly in an directive management style with little, if any, input being solicited from staff. A paternalistic approach was reinforced by a commitment to being a premiere

facility that brooked little tolerance for failure. Unions represented the only avenue by which staff could have their concerns and frustrations addressed. The late 1980s saw increased evidence of staff-management friction in increased numbers of grievances and arbitrations.

Medical staff interviewed concurred that administration was viewed as inhibiting, rather than facilitating, the work of professional health care providers. Resentment over the administrative focus on finances was particularly sharp since physicians generally did not acknowledge inefficiencies in health care provision, unless such were administratively driven. The relationship was complicated by the existence of a strong counterpart to Hospitals' administration, that being the Faculty of Medicine. Prior to 1988 there existed a strong degree of competition for preeminence in decision-making between these two entities that exacerbated strains in medical staff relations.

The appointment of a new President of the Hospitals in late 1987 was the first step in addressing these concerns. Associated with the Hospitals two years prior to his appointment, the new President was positioned to understand both the strengths of the hospital and the need to address its weaknesses. The President was also conscious of challenges facing health care as a whole, trends which suggested a requirement to seriously rethink contemporary modes of health care delivery.

TQM was not as yet the methodology of choice to address these concerns.

Nor was there any conscious effort prior to 1989 to implement TQM. The first step in the change process took place in 1988 by revisiting the Mission Statement. Aside from being a statement of specific services to be provided, the Mission Statement focused on the culture and goals that the Hospitals was to pursue. Among these targets were: effective resource management; an ability to respond to opportunities and changes in health care with boldness and innovation; assumption of a leadership and collaborative role with other health care facilities; and, generation of a positive working environment that could motivate staff and foster productivity, pride and well-being of both the individual and the organization.

In attempting to live this Mission, the Hospitals undertook three major initiatives in 1988. The first of these, directly related to effective resource management, was the introduction, with the help of the Baxter Corporation, of the Value Improvement Program (VIP). VIP was initially conceived, and continues to be thought of, as an attempt to reduce costs associated with performing certain procedures without compromising care (Schurman, 1991). A major reason for initiating the program was a realization, evident in more than just the Hospitals, that wide variations existed in practice patterns. VIP looked at specific medical procedures with a view to addressing these variations and comparing outcomes in hopes of reducing overall variation, reducing costs, and improving, or standardizing quality of care. Administrative personnel involved in VIP did not enforce conformity upon

physicians but rather presented data in a non-judgemental manner. Changes initiated became the responsibility of the physicians involved.

The earliest attempt at utilizing VIP occurred in Fall 1988. The cases of 32 patients who had undergone total hip replacement during a 12 month period were reviewed (Schurman, 1991). The average cost of the procedure was determined and compared to five similar hospitals across Canada. A task force then developed an action plan to streamline all processes involved with total hip replacement. The action plan was acted upon over the course of the next year. The results were the reduction of average cost for total hip replacement from $7,056 to $5,563, while total expenditures on the units involved dropped from $3.35 million to $2.67 million. Successes of this kind, and VIP in general, continue to be used to justify the subsequent commitment to TQM.

A second major initiative was completed by the Hospitals in November 1988 with the completion of an Organization Effectiveness Survey. A means of assessing opinions regarding the Hospitals and its performance, the survey identified levels of dissatisfaction among staff which, in some cases, manifested themselves in feelings of alienation. Additionally, many did not understand their role in the organization and felt a lack of appreciation for the work they did. Dealing with staff shortages in certain areas, and maintaining productivity and efficiency throughout the organization, were deemed difficult tasks unless positive change occurred.

Finally, it was in 1988 that the Hospitals first introduced its "Frontline Leadership" training course. Its introduction was undertaken due to a subjective recognition of the need to develop managers, particularly in the area of leadership skills. It was later to become a core course of an extensive list of TQM courses. It also provided the first contact with the Achieve Group Inc., a consulting group, that was to become a major resource for the Hospitals eventual commitment to TQM. This step would not take place until September 1989.

In coming to an understanding of TQM and deciding whether it would be implemented at the Hospitals, senior management took steps to familiarize themselves with the concept through readings, attendance at conferences, and consultation with the Achieve Group. The first steps in defining and implementing a TQM process were taken at a Board and management retreat, facilitated by the HCA, in the Fall of 1989. This was also the first forum in which Director level management and Medical Staff Administration became aware of TQM.

The Achieve Group was chosen to assist the Hospitals in implementing TQM because of their previous relationship with the Hospitals (as per Frontline Leadership course) and because Achieve did not appear to constrain the Hospitals to a particular TQM philosophy (ie., Deming, Juran, Crosby). In addition, the Achieve Group provided a framework around which to build the TQM process at the Hospitals. This framework comprises the 'Three Rings of

Perceived Value" and the "Service Quality System" which is further divided into 12 "cylinders" (Clemmer & Sheehy, 1990). The 12 cylinders are divided between each of three categories. The Values category is comprised of the first four cylinders, Signalling Commitment, Listening to Internal/External Customers, Internal Marketing, and Hiring and Orienting. The Skills Category is comprised of cylinders five through seven, Personal, Coaching, and Team. The Alignment category comprises cylinders eight through twelve, Systems, Reward and Recognition, Team Tactics, Measurement, and Marketing Strategies. With some modification, this framework was adopted for the planning and implementation of a TQM process at the Hospitals.

For the President, the acknowledged leader of the TQM process, the reasons for adopting TQM were readily apparent. Rather than focusing on people as causes of problems, a problematic approach, there was a focus on process. TQM committed the organization to listening, focused not only on external customers but on internal customers (staff, medical staff) as well. TQM was viewed as being more than a management technique, it was a holistic approach that integrated all aspects of management and would assist the Hospitals in dealing with its threatening environment.

One of the first key moves in the development and implementation of TQM at the Hospitals was the abandonment of the reporting structure of Quality Assurance (QA) as a method for assessing quality of care. Most managers agreed that QA was not effective and needed to be replaced. There

was, however, trepidation at having no system readily available to take the place of QA. The initial step toward replacing QA was the creation of a Quality Improvement Council (QIC), which held its first meeting on September 5, 1989. At this initial meeting the proposed role of the QIC was discussed as was the initiation and content of a Quality Improvement policy. Neither one of these steps would be completed until the spring of 1990. Initial discussions also took place at this time as to what hospital-wide quality indicators could be adopted to monitor progress in TQM.

The QIC served as a forum for receiving updates from other committees or bodies within the hospital that might have some relationship to quality. An important first communication to the QIC was the decision on the part of the medical staff to implement a Medical Management Analysis program. This decision was taken in July 1989 and communicated to the QIC in September 1989. The QIC's input to this decision was a request to have all clinical areas, not just medical practitioners, involved in the program. This program developed into the Medical Quality Improvement (MQI) initiative.

MQI, although utilizing many quality improvement concepts, was not, and is not, administratively linked with the mainstream quality improvement effort of the Hospitals. It has remained separate and apart, reporting to the Vice-President Medical Affairs. Drawing on the experience with VIP, but adopting a broader focus, the purpose was to track all aspects of patient care over time. The departments and the programs that choose to participate review 25 generic

criteria, customizing them as they deem appropriate, that are tracked over time. Nursing staff, with several years experience in either intensive care or critical care units, are drawn upon to conduct the analysis of charts in accordance with the criteria that program areas have selected. The purpose is to look for deviations from the norms established, track trends, discover special occurrences, and explain the data as required. These analysts are also given the mandate to intervene concurrently should circumstances warrant such action. The perceived advantage of having nurses as analysts stems from their clinical background and the comfort level they have with respect to all policies and procedures.

Consistent with the request of the QIC, and with the tenets of TQM, the analysts have also been mandated to review more than just components of physician care. All aspects of patient care that could have the potential to impact on quality, covering a range of nursing, laboratory, radiology, and pharmaceutical services, among others, are reviewed. Attempts are made to gather and disseminate information that is relevant to these other parties.

The MQI department and analysts do not view themselves as inspectors or police of the clinical care areas, nor do they appear to be viewed in such a manner. Rather, they form a resource base upon which clinicians can draw to review the quality of care and to justify alterations in practice patterns. Actions subsequently taken stem directly from the 25 criteria chosen and the commitment of the physicians to adhere to those criteria. Thus action is only

initiated by the peer group involved in the specific area, not by MQI. Initial reactions were not as positive, with very real concerns expressed by physicians as to how such sensitive information might be used, with specific reference to credentialling. Extensive provisions have, thus, been made for protection of this information and, with a non-threatening approach, MQI is now receiving numerous requests to become involved with other programs.

The latter part of 1989 found the QIC attempting to formulate hospital-wide quality indicators. The first set developed included the broad categories of Medical indicators, General Patient Care and Staff indicators, and Patient Feedback indicators (University of Alberta Hospitals Quality Improvement Council Minutes, October 3, 1989). Direct responsibility for each indicator was assigned to a member of the QIC, with each member being held accountable for developing means of measuring progress in their respective indicator. The remainder of 1989 was centred on developing terms of reference for the QIC, discussing the QI policy, receiving reports from various other committees (MQI, Accreditation), and determining how the Patient Care Committee of the Board would relate to the QIC.

In February 1990 a Director of Quality Improvement was appointed. This step, along with the previous formation of the QIC and development of QI policy, represented an increased formalization of TQM at the Hospitals. While this approach tended to legitimize and signal the level of commitment to TQM, it also had the adverse impact of convincing some employees and physicians

that quality improvement was just another administrative add-on.

Attempts at developing and disseminating the core values of the organization were also under way. A senior management retreat at this time resulted in the production of two key documents. These documents had as their base, deliberations of the senior management group and knowledge gained in attempts to operationalize the concepts within the Mission Statement. The first document, the Reason For Being (RFB), was intended to convey succinctly the role the Hospitals saw for itself. The RFB is the simple statement, "Leadership In Health Care: Caring, Teaching, Discovering". It assisted the organization in focusing on being a leader in all aspects of health care. The second document comprised the core values of the organization which were "Respect, Partnership, Continuous Improvement". These were to define how people both within and outside of the hospital were to be dealt with and reflected the goal of continuous improvement. These two documents were utilized as future guideposts in shaping the culture of the Hospitals.

In March 1990 the Board of Directors approved the QI Policy. The primary purpose of the policy, and its approval by the Board, was to signal the commitment to TQM that the Hospitals had made. It specifically identified the structure of the process and the linkages between the Board, the QIC, QI teams or task forces, MQI, the Service Quality Improvement Committee (SQIC), accreditation efforts, and the QI department itself. Subsequent to this approval, the Hospitals contracted with the Achieve Group for the training

courses necessary to assist management, staff, and medical staff make the transition to TQM.

Despite the fact that the Board of Directors had approved a QI policy, it was not until a Board retreat of June 1 and 2, 1990 that the QI process was formally endorsed. The Medical Staff Advisory Board committed themselves to supporting the administrative effort in QI at approximately the same time. Formalization of a 5 year QI plan gained new impetus from these approvals. First contemplated in March 1990 the plan would not be published until October 1990.

In August 1990 the first major difficulty in making the transition to TQM at the Hospitals was addressed with the termination of the employment of the Quality Improvement Director. Events leading up to this transitional point had apparently been building for some time. Specifically, there was a perception that there had been an excessive focus on TQM jargon without a commensurate commitment to developing the education and training necessary for management and staff. This gap manifested itself more clearly over the course of time. A lack of communication with the QI department was also perceived by other departments of the Hospitals. A direct consequence of these developing problems was the impression on the part of the President that his own commitment and credibility in respect of TQM were being called into question. Thus, it was in August 1990 that the Director of Education was appointed as Acting Director of Quality Improvement. The appointment

became permanent soon thereafter.

Consensus among those interviewed, corroborated by documentary evidence, is that this move added new impetus to the TQM initiative. QI corporate indicators were reviewed, expanded, and reorganized into 4 areas of Patient Satisfaction, Staff Satisfaction, Physician Satisfaction, and Financial Performance. Progress was made on selection and training of QI Coordinators for each division and department. Facilitators, for the Achieve educational programs, were trained. A review of membership on the QIC was undertaken. Membership had previously been restricted to the President, the Senior Management team, the Chairman of the Medical Staff Advisory Board, President of the Medical Staff, two representatives from MQI, the Director of Risk Management, and the Director of QI. Questions arose as to whether other representation, particularly from the unions, should be considered.

The most tangible evidence of a re-energized focus on TQM was the development of a Quality Improvement Plan, formally documented in October 1990. The Plan focused on a three year time frame. The first step in the plan was to be the appointment of a Quality Coordinator by each of the Divisional Directors. In conjunction with the Directors, these individuals were to assume responsibility for the quality initiatives in their areas and report progress to the QIC.

Targets specified within the first two years of the plan focused on the three areas of enhancing awareness of TQM, TQM skills development for all staff,

and in establishing processes that would facilitate TQM. Aside from elements of structure and process already mentioned above (QIC, RFB), steps were contemplated whereby performance appraisal systems and hiring and orienting processes would be altered to reflect the new focus on TQM. In addition, efforts to provide skills training for all staff and management were planned. Specific efforts and initiatives to measure QI results, aside from the corporate quality indicators were also targeted. Year 3 of the Quality Improvement Plan was more nebulous, focusing only on potential areas of improvement. Identified areas of concentration in year 3 were Statistical Process Control, Continuous Process Improvement, and maintenance and enhancement of the quality of goods and services supplied to the Hospitals.

Courses identified in the Quality Improvement Plan were partly in place prior to the formal commitment to TQM. "Frontline Leadership" classes had been in place since 1988, "GroupAction" classes began in April 1990 and "Working" classes in May 1990. Courses implemented since are "Introduction to Quality Improvement", "Enhanced Service Process" (ESP), "Quality Enhancement Through Skills Training" (QUEST), "Customer Listening Using Surveys", and "QI Coaches Clinic". Reflected in the last two courses is a response on the part of the QI department to customer requests for specific training skills other than those found in existing courses. Several programs available from the Achieve Group are based on a behaviour modelling process and follow certain basic principles. Course length varies from one, full day

session for the "Introduction to Quality Workshop", to 23, half day sessions, over a similar number of weeks for "Frontline Leadership".

The next difficult stage in the development of TQM at the Hospitals was the decision, based on the financial stress the organization was experiencing, to lay off 140 nursing staff in November 1990. Aside from being a particularly painful decision in and of itself, the timing, coinciding with training of the first Department QI Coordinators, could not have been worse. A decision of this nature, taken so soon after the formal commitment to TQM, was viewed in some quarters as being in direct conflict with the values being espoused by the Hospitals. It caused many staff to question the commitment of the Hospitals to TQM, and to staff, which in turn acted as a deterrent to staff involvement and acceptance of the initiative. One attempt at minimizing the impact of this decision, and the impact on the TQM process, was the rescheduling of nursing representatives from the November 1990 session to March 1991. This allowed time for hard feelings associated with the lay-offs to pass.

At the beginning of 1991 efforts were made to translate the corporate Quality Improvement Plan into departmental plans. Similar to the means for accounting for progress in the corporate quality indicators, Vice-Presidents were held responsible for the approval of each of these plans. The Board was also active in furthering the TQM process. One means by which it demonstrated its commitment was by renaming its Board Patient Care Committee the Quality Improvement Committee. Even at this stage, however,

commitment to TQM was problematic, if such can be judged by resistance that was expressed to the name change on the basis of concern over a potential loss of patient focus.

By the summer of 1991 the Hospitals was far enough along in its TQM process that several success stories were being touted. Aside from previous successes in VIP, which were replicated in other clinical areas, Respiratory Services reported a $10,000 reduction in costs arising from a change to a more efficient inhaler for broncodilator therapy, Photography and Medical Illustration reported a 57% increase in pages of artwork produced without a commensurate increase in staffing, and Human Resources was able to report a $200,000 reduction in arbitration costs over a 3 year period (University of Alberta Hospitals The Quality Journey, September 1991). Other successes of a financial nature were reported, but early successes were often recognized simply if departments were able to identify their customers and their corresponding needs. In total, the Hospitals identified 54 quality improvement teams, with an expressed concern that not all groups were being identified.

Certain initiatives, however, did not proceed as smoothly as evidenced by the demise of the Service Quality Improvement Council (SQIC), the need to revise certain departmental QI plans, questions about the role of senior administration, and continuing uncertainty over the scope of QI activities (University of Alberta Hospitals Patient Care Committee Minutes, May 22, 1991). The SQIC, originally formed to act as communications forum on QI

efforts for all departments, rapidly proved unwieldy. To a number of individuals, the mandated nature of such a committee also appeared to be inconsistent with the philosophy being proposed by TQM and the values of the organization. In many ways, therefore, the passing of the SQIC was received with relief. Certain departmental QI plans were also referred back for revision during this time based primarily on a demonstrated lack of understanding of the process (University of Alberta Hospitals Patient Care Committee Minutes, May 22, 1991). Specifically, there appeared to be an undue concentration on discovering people, rather than process, problems. Concern was expressed at this time over the appearance of sporadic commitment to TQM on the part of senior management as reflected in frequent cancellations of their presence at various quality workshops.

Finally, concern was being expressed over using the QI department as a central clearing house for improvement suggestions. Reflected in this debate were the conflicting needs to ensure freedom from fear in the organization from punitive actions based on this information, and on the need to track ideas and responses to them. Evidence suggests that the Hospitals has achieved no more success in resolving this dilemma than have other organizations. At a more basic level, some within the Hospitals questioned the wisdom of establishing an identifiable Quality Improvement department. This arises from the belief that quality is everyone's job and that the establishment of a separate entity "in charge" of quality diminishes an overall commitment to continuous

improvement.

In October 1991 the Hospitals observed Canadian Quality Month. Two "Team Recognition Days" were held whereby the efforts and achievements of quality improvement teams were acknowledged. Six teams were able to discuss completed projects, twelve described ongoing projects, and thirty other teams introduced projects. Subsequent to this event plans were initiated to establish awards to recognize individual and team QI efforts. These awards were established in six categories being, Consistent Excellent Performance, Customer Service, Innovation, Quality Management, Exemplary Commitment, and Esprit de Corps. Overall, 132 awards were proposed for distribution. Consistent with this desire to recognize achievement was the display of graduating TQM class photographs in a main hall near the administrative suite of the Hospitals.

By the spring of 1992 the University of Alberta Hospitals was recognized as one of the leaders in the application of TQM principles in health care. This assessment is based on inquiries received from several organizations, both from within Canada and from abroad (University of Alberta Hospitals Quality Improvement Council Minutes, February 21, 1992). In addition, members of the senior management team had been requested to present and write on the nature of their process across North America (University of Alberta Hospitals Quality Improvement Council Minutes, February 21, 1992). Approximately 2,500 staff and managers had been exposed to at least one of the TQM skills

training courses.

The future focus at the Hospitals with respect to TQM reflects the evolving understanding of the process, particularly at the senior management level. The original goals and targets specified in the 1990 QI plan (Appendix B) were deemed to have been largely accomplished within a year and a half, rather than the three years originally anticipated. The new plan is designed to reflect a more global perspective on TQM, beyond the original 12 cylinder approach. TQM is now viewed as taking place in the framework of a 3 component model. The first component of this model, Context, reflects the need for the Mission Statement, Values, Strategic Plan, and Goals to mirror the organization's commitment to TQM. The second component, Infrastructure, must then be adjusted to support and enhance the achievement of the first component. The changing infrastructure, in turn, demonstrates the need to address the third component of the model, that being Member Capability. This implies provision of the necessary training and support to employees to carry out their duties. The three component model translates into having people who are capable, working with an enabling infrastructure, in an empowering context to achieve the mission and vision of the hospital.

The new QI plan is also intended to directly address the issues of measurement and physician involvement. Despite successes enjoyed to date, the Hospitals as a whole is still struggling to identify and quantify the progress of TQM. A more specific emphasis on benchmarking, the use of

Statistical Process Control (ie., control charts), and continuing refinement of the performance appraisal system are targeted for. Physician involvement, limited at present, has also been targeted for action in 1992. This has been recognized as an area requiring attention for some time. Action had been postponed while other components of the organization were addressed. It is acknowledged that future success in TQM requires more from physicians. The first step in achieving this increased level of commitment calls for a Medical Staff retreat in June 1992 on the topic of TQM.

Despite the fact that the planning process for the next stages in TQM will be reflective of the three component model, as opposed to the twelve cylinder model initially utilized, efforts are being made to ensure that the two are not viewed as being contradictory. This is deemed necessary to ensure that all staff continue to speak the same TQM language and retain gains of the preceding two years. Furthermore, there is a desire to not create the impression that 2,500 people have received training in an outdated methodology.

The Role of the Board

The Board's understanding and commitment to TQM has been an evolutionary process. The President's role in guiding the Board through the development and implementation of the process is readily acknowledged. The relationship between the Board and the senior management has also undergone significant change, with both parties acknowledging an increased

sense of partnership.

The initial reaction to TQM was mixed. For the majority of the Board TQM held logical appeal as an effective means of achieving the Hospitals' goals. This was counterbalanced by a concern over the proposed cost and time frame to achieve the results touted. Intimately related to these concerns was a concern that a focus on quality equated with a focus on efficiency and financial performance only. This translated directly into a concern that quality of patient care might become a secondary focus of the hospital. This formed the basis of initial resistance and skepticism with respect to TQM.

The most visible sign of early resistance to TQM was the expressed concern regarding the proposed renaming of the Patient Care Committee to that of the Quality Improvement Committee. As the Board gained more experience and were provided with more information they came to view TQM as a process that improved quality of patient care and financial performance concurrently. Thus, through this committee, the Board has adopted an active role in the TQM process. Specifically, the QI Committee has acted as a conduit for reports and presentations from all areas of the hospital.

The Board, through its more active role in TQM, and in organizational affairs generally, has also become more deeply concerned with the impact its actions, and other environmental factors, have on the TQM process. They realize they are viewed as leaders in the hospital and must be seen as supportive of TQM if its success is to be facilitated. Similarly, the quality

assurance focus of the accreditation process concerns them as it is viewed as being in contrast with the changed focus of the Hospitals.

The Role of Senior Management

The most critical role in the development of TQM, as acknowledged by all constituents in the Hospitals, has been that of the senior management group. Their leadership is recognized by all elements of the organization, including the Board of Directors. The progress of the TQM process is directly related to their level of understanding and commitment to the process and in their ability to focus time and resources on achieving the goals of TQM.

The President has been the driving force behind the TQM initiative from the outset. He introduced the hospital to the concept and by various means has striven to communicate the essence of TQM. The extent of his leadership is reflected in concerns that have been expressed, at all levels of the hospital, that should he leave the TQM process would suffer.

The level of understanding of, and commitment to, TQM by senior management has evolved over time. In the initial exposure acceptance on the part of senior management was relatively easy to gain. This was partly due to the perceived logic of the concept. Also advantageous was the fact that the senior management group as a whole had only been recently been appointed and thus were more receptive to new concepts. Nevertheless, an understanding of what it meant to commit to TQM was simplistic at this time.

Over the course of the past two years, the senior management group has

become more clearly aware of what is meant by the phrase "TQM is a journey, not a destination". The initial vision of the concept focused primarily on continuous improvement and financial performance. It has only been recently, as previously noted, that recognition of a broader scope of TQM has been achieved. Furthermore, the focus now is not only on improving the work of the organization, but also on improvement of TQM itself.

Members of the senior management group also admit to having initially underestimated the task they had set for themselves. They now stress the importance of their personal leadership and commitment to the process. For them this not only implies verbal discourse on the process but active involvement in facilitating TQM. This has been translated into personal presentations at skills training courses, facilitating skills training courses, and coaching quality improvement teams.

The Impact on Middle Management

Middle Management has experienced the most discomfort in dealing with the organization's commitment to TQM. In making the transition from a directive style of management to the participatory style the level of ambiguity experienced has been extreme. Some confusion has been created for those who have spent years in management with certain expectations of what the role of a manager was. With the commitment to TQM, this perception is no longer valid, and managers are being required to give up traditional powers.

Aside from a reluctance to give up power, many managers are uncertain as

to how to operationalize components of TQM, particularly empowerment. Unclear expectations as to the new roles of managers, and staff, has led to high stress levels. The dilemma faced is in trying to balance some form of direction over processes and, not incidentally, maintaining one's employment with allowing adequate levels of decision-making on the part of staff without arriving at an anarchical state. This latter concern is particularly noted in clinical areas where the consequences of inadequately informed or communicated decision-making can be disastrous.

Perceptions are mixed as to whether the organization has done enough to prepare managers for their new roles. The variability of reaction is primarily related to the degree to which any one individual is personally involved with or committed to TQM. Those with a greater degree of either believe that adequate efforts were made to inform and prepare managers for their new roles under TQM. However, consensus also exists that managers were informed that not all would survive the transition. Statements of this nature do not appear to have been made in an overtly threatening manner, but rather as a simple statement of fact. The degree of respect with which such "casualties" have been accorded is another area of disagreement.

There have been varying degrees of commitment from the middle management group with respect to TQM. There have been those managers who have readily accepted the concept and have begun to practice it. Others, while philosophically accepting the concept, are having difficulty putting TQM

into practice. Finally there are those who have either been unwilling, or unable, to commit to or operationalize TQM. The varying degrees of commitment are due to several factors ranging from personal motivation, level of perceived threat, and length of service.

What has been perceived as lacking in facilitating the progress of TQM at the middle management level has been the existence of adequate support mechanisms. First among these has been the lack of a performance appraisal mechanism reflective of the TQM philosophy. The process of developing such a mechanism has been ongoing for approximately a year and a half, but in the interim the unclear expectations noted above have only being compounded by this gap. Some departments, in a stopgap measure, have gone so far as to attempt to construct their own mechanism based on their understanding of TQM.

Closely linked with the need for a revised evaluative mechanism are the rising expectations on the part of managers to be coached on their performance and evolution in their new roles. More succinctly, there is an expressed requirement on the part of managers to be afforded the same amount of respect and resources in learning their new roles as that being afforded front line staff.

For those managers interviewed that view themselves as having successfully adapted to the new roles envisioned for them and their staff, the benefits have been clear. They view empowerment as allowing increased

flexibility in task performance. By allowing staff to undertake some traditional managerial duties, managers have been able to tackle long standing problems and processes. Furthermore, the emphasis TQM places on teamwork has meant a greater degree of communication and collaboration within and between areas, allowing for increased levels of accomplishment and decreased levels of frustration on the part of managers.

The Impact on Staff

Initial reactions of staff mirrored those of management staff. There was little understanding of the reasons for adopting the TQM philosophy. In large part this reflected the evolving understanding, and difficulties in communicating the concept, on the part of the senior management group. This lack of understanding on the part of staff manifested itself in varying degrees of concern and skepticism. Concern was expressed over the resources committed to the process and towards the creation of a new department responsible for TQM. These concerns were exacerbated by perceptions that funds could have been better spent on new equipment and additional staffing.

Following VIP as it did, and consistent with the initial approach to TQM, there also existed the perception that TQM was not focused on quality, but rather on financial efficiency. Lay offs of nursing staff during the initial stages of implementation of TQM served to convince staff of this viewpoint.

Previous management initiatives, which had previously enjoyed similar popularity but short lives, also caused staff to view TQM derisively. A

majority questioned why management should choose to listen to staff now when so often in the past that had not been the case. Opinions of this nature were further reinforced by presentations which served to create the impression that the quality of care prior to the introduction of TQM was substandard.

As understanding of the concept has evolved perceptions have softened. Staff interviewed express recognition and acceptance of the need for increased efficiency in hospital operations and understand how TQM is being utilized to help achieve that end. Although not as sophisticated in terms of measurement capability at the outset, the initiation of TQM came as a welcome replacement for the gap left by the abandonment of the reporting structure of Quality Assurance. Staff expressed appreciation of some of the real efforts to involve them in decisions affecting them and their work. They began to feel trusted and came to believe that they made a difference to their organization. Most had believed that their input was of value in improving the quality of their work, and ultimately the quality of patient care, but had never previously been given the opportunity to make such a contribution. In this same context, the mechanisms and philosophy provided by TQM came to be viewed as a means of addressing long standing concerns of staff.

Benefits identified by staff in the current stage of the TQM process are several. A better working relationship has developed between departments as communication has increased. Correspondingly, morale has improved as staff realize how other areas function and why processes are constructed as they

are. An increased understanding of their new role in the organization, and the freedom to exercise that role, has also meant that staff have displayed an increased willingness to deal with problems through action rather than through covert complaints. TQM has also meant increased recognition and educational opportunities for those staff (ie, environmental services) traditionally not privy to such. This has translated into greater degrees of energy and commitment among staff.

The sheer size of the Hospitals, however, has resulted in such success across the organization being variable. There are still areas that either have not been exposed to, or involved with, quality improvement efforts, or have only been able to undertake very limited application of the skills provided in training courses. This is partly explained by the leadership role played by respective managers, but also by the inability of many to relate these skills to their everyday work. Reflecting the size of the hospital, communicating the concept, training staff, and implementing improvement ideas have been equally difficult. Along with the fear that improvement in processes will mean job losses, this communication difficulty has resulted in many adopting a tentative attitude with respect to TQM.

The Union-Management Relationship

The original quality improvement plan did not directly involve unions, either in its preparation or implementation. Rather, the unions were informed of the decision on the part of the organization to pursue TQM. This situation

has largely remained in effect, although union representatives have noted efforts to involve them with organizational initiatives in a more general sense. The unions do remain desirous of more specific efforts to inform them of and involve them with the TQM initiative, if only to protect the interests of their membership. Caution is still being exercised on the part of the unions out of concern of misrepresenting interests of the membership.

Generally, the unions have accepted the positive nature of the TQM philosophy, particularly with reference to staff involvement in decision-making. There is also appreciation of the enhanced level of teamwork, collaboration, and communication that has been promised, and achieved with, TQM. The economic imperatives under which the Hospitals is operating has also been recognized and with it a sense that such should also concern the unions. TQM is not viewed as an attempt to co-opt the union, but rather as a sincere attempt on the part of management to positively alter the working relationship between management and labour and better serve patient needs. At a less philosophical level, union representatives have noted a reduced level of involvement on their part with respect to grievance arbitration. In the case of one local president this has been most evident in identifying only two situations in which his perception of what TQM entailed has differed from that of management.

Tempering these benefits are equally real concerns on the part of the unions. While commitment at the senior management level is acknowledged,

inconsistency in application at lower management levels has occurred. This inconsistency has demonstrated itself most visibly in the slow pace of some initiatives, the reversal of previously agreed to decisions (which had enjoyed staff input and consensus), persistence in secrecy of some decision-making, and the continuing debate as to what empowerment is and how it is to be put into practice.

The unions also have a concern that some tenets of TQM are in direct conflict with negotiated collective agreements and basic philosophies of the labour movement. Specifically, there is a unwillingness to consider any process resembling peer review or hiring for fear that the equality presently enjoyed by all workers could be jeopardized. Furthermore, there is a concern over the desire on the part of management to pursue TQM initiatives that are not in accordance with negotiated collective agreements. Indeed, some issues are perceived as having already been previously negotiated within these agreements and, therefore, attempts to circumvent them by the TQM process are strongly resented. Future negotiations are being used to gauge the degree of management commitment to developing a new relationship with labour.

While the unions remain cautiously optimistic about TQM, requesting more signs of positive change indicative of the concept's worth, managers are increasingly demanding more from the unions. It is a general impression among managers that they are making a concerted effort to change and that this demands a corresponding level of response from the unions. Managers

have come to realize that, while the union-management relationship will never be entirely free from conflict, the two parties must work together more than ever before now. The problem, however, is that neither party has a clear vision of what role the unions are to play in a TQM organization. It is, therefore, likely that the unions will continue to proceed with caution.

Physician Involvement

Physicians remain largely uninformed of and uninvolved with the TQM process. Only those holding administrative positions within the medical staff hierarchy, or those who have been identified as receptive to the concept, have been exposed to any kind of educational effort. Others have become involved to the extent that their areas are involved in quality improvement efforts. It is acknowledged by several individuals interviewed, however, that a large majority of physicians (75% to 90%) remain pessimistic of the quality initiative, concerned that it is an administrative fad, and unconvinced that increases in quality can be achieved while at the same time reducing financial resources.

The skepticism of physicians has as much to do with general environmental pressures as it has to do with the approach being taken by the Hospitals in introducing TQM to the medical staff. Many fear that the measurement called for by TQM will be utilized to monitor and discipline them, particularly as it relates to the credentialling process. Additionally, the increased emphasis on teamwork and empowerment of other staff has enhanced concerns over a loss of power over medical staff practice.

Many physicians remain unconvinced that an industrial model of quality can be transferred to the health care field. An approach they perceive as verging on the evangelical, rather than on the practical, has also done little to gain their commitment. In general, physicians are demanding more demonstrated successes before committing themselves to TQM.

Senior management and some senior medical administrative staff view the future involvement of physicians with optimism. First, the ability of the organization to develop medical staff "champions" has made some impression on their colleagues. These individuals, more than any other, are viewed as having the potential to convince their colleagues of the benefits of TQM. In addition, VIP and MQI efforts have helped in demonstrating that, by increasing efficiency and reducing variability, quality can be increased while at the same time reducing cost. Physicians view this as a more palatable option in dealing with financial constraints than cutting back services.

Senior management has recognized that more specific efforts are now necessary to involve physicians if TQM is to continue to gather momentum, and overcome staff resentment at physician non-participation. As already noted, a medical staff retreat on TQM is to be held in June 1992. Furthermore, there is an acknowledgement that the most effective means for gaining physician commitment is through improvement of processes that most directly affect them. Finally, it is recognized that both credentialling and selection of department chairmen will have to take into account knowledge of, and

commitment to, improvement methodologies.

Process Status as Measured Against Deming's Fourteen Points

In creating constancy of purpose, the Hospitals has been relatively successful in committing to a long-term perspective, to innovation, to research and education, and continuous improvement. The largest problem that has been faced has been communicating this perspective to all elements of the organization and in this the process has been inhibited by the sheer size of the Hospitals.

Steps have been taken to adopt the new philosophy. There is a more ready willingness to acknowledge defects in service, a focus on removing barriers between management and staff, and an extensive commitment to training. Senior management is strongly committed to the TQM process. They view TQM as being a process in constant evolution and have determined that patience in application will see the process through.

Strong steps have been taken with respect to ceasing dependence on mass inspection. As noted previously, the reporting structure of Quality Assurance was dropped entirely before emphasis was placed on TQM. As is evident in the main effort and in MQI, the focus has not been one of policing departments for compliance with imposed standards. Rather, each area has been encouraged to develop and monitor their own performance against internally developed goals. Some fear still exists that there is the potential for personal repercussions from the collection and analysis of data.

On Point Four, ending the practice of awarding business on price tag alone, initial steps have been taken to establish long-term relationships with external suppliers. Most notably, the Hospitals has recently entered into a five year agreement, worth five million dollars, with the Baxter Corporation. Similarly, a major partnership agreement has been entered into with Johnson & Johnson. Both these agreements entail a commitment to more than price, most notably including an intent to share TQM experiences. As noted above, staff-management relationships have experienced difficulties in relation to TQM most notably with the unfortunate timing of lay-offs. This has been overcome to a large degree, with unions and staff generally providing good marks to the organization with respect to involving staff in decision-making. Financial concerns, and the associated fears of contracting out and lay-offs, remain a reality.

The Hospitals has made strides in improving constantly and forever the system of production and service. This derives first from senior management's realization that TQM is not focused on rigid goals, but rather is a process by which to reach and exceed goals. The improvement initiatives undertaken by VIP, MQI, and departmental improvement initiatives have also been noteworthy for their long-term and systems focus. Their success is further attested to by the numbers of physicians and departments requesting assistance in analyzing their own processes.

The Hospitals has been relatively strong in instituting training. The

number and content of its TQM courses have been well received. However, there is concern over the length of time over which some of the courses are offered. The concern being that results of this educational investment will not accrue for some time given the long time it will take to achieve a "critical mass" of informed staff and management. Structured application upon conclusion of the courses has also been a problem.

Once again the largest factor impacting on the Hospitals ability to institute leadership is the size of the organization. The inertia inherent in an organization of its size makes it difficult to overcome inclinations to focus primary attention on day-to-day management issues. However, senior management remains focused on empowering staff with a view to leading rather than managing them.

The Hospitals effort to drive out fear is again impacted by the organization's size. This is a fact readily acknowledged by the President. While there has been an increased willingness on the part of staff to offer their concerns and suggestions, there is no question that such perspectives are not universal. Organizational size enhances the ability of some managers to continue to practice a management style not consistent with the new focus of the Hospitals.

Some success has been evident in breaking down barriers between departments. A potential hindrance to this effort has been the design of TQM courses the Hospitals offers. The once a week, extended nature of the courses,

while supportive of an adult learning process, appears to preclude a true integration of concerns and thoughts of participants. The number of cross-functional teams has been estimated at up to twenty-five to date which represents some evidence of problem solving aimed at resolving system-wide, as opposed to departmental, problems.

The Hospitals has eliminated slogans, exhortations, and targets for the workforce and eliminated numerical quotas. This owes much to the improvement initiatives of VIP and MQI, which have adopted a decidedly improvement-oriented, rather than inspection-oriented, perspective. As with most other health care institutions, however, financial pressures continue to force a focus on budget.

In removing barriers to pride of workmanship, the most significant effort has been in the development of a new performance appraisal mechanism. The work of the Human Resources department has been assisted by, and in some cases driven by, other departments interested in incorporating the TQM philosophy into their routines. In the interim, however, concerns over lack of feedback and communication continue to be expressed by a significant portion of staff.

Due to the fact that the Hospitals has only exposed approximately a third of its staff to TQM a determination on whether they have instituted a vigorous program of education and retraining is difficult to make. There have been attempts to offer new courses as demand has been made clear but structured

application opportunities are not available. This has prompted some discussion on whether a just-in-time training perspective should be adopted over the mass educational effort currently ongoing. Whatever route is ultimately chosen, it is clear that senior management remains committed to ongoing training even considering current financial imperatives.

Results of efforts aimed at taking action to accomplish the transformation have been somewhat mixed. While the commitment of senior management to the TQM philosophy is not seriously questioned, their willingness to commit time to being directors, coaches, and missionaries for the process has been. For example, at times complacency in attending TQM training courses has been an issue. From an organizational restructuring perspective, the Hospitals has created a Quality Improvement department that has been viewed as a catalyst in facilitating the progress in TQM. At the same time there is a realization that the ultimate goal is to have TQM become an integral part of management activities thus making the department superfluous. In addition, little progress has been made in restructuring key organizational systems as in Human Resources (recruitment, performance appraisals).

Overall then the status of TQM at the University of Alberta Hospitals is mixed. Some areas and managers have experienced notable successes in operationalizing principles and techniques of the concept while others have struggled. The leadership, commitment, and understanding of the concept on the part of the President is unquestioned and has assisted success in

implementation to date. The situation is more variable in respect of the rest of the senior management team. The large size of the Hospitals and the drawn out nature of training sessions has established cause for concern. Similarly, the lack of complementary, hospital-wide human resource systems has not facilitated more rapid progress in TQM.

Chapter VI

Conclusions

The intent of the foregoing analysis has been to reach a point at which two research questions can be addressed. First, whether the concept of Total Quality Management can be applied to the Canadian health care system? An answer to this question is partly derived from an analysis of the experience of two Alberta acute care hospitals. Second, what steps can be recommended to other health care organizations contemplating implementation of TQM, assuming the concept is of any benefit? This chapter is devoted to addressing these inquiries. These conclusions represent a synthesis of literature reviewed, case studies of two Alberta acute care hospitals, and the researcher's experience and knowledge of the Canadian health care system and of the TQM concept.

Can TQM be Applied to Canadian Health Care?

On a theoretical level I have no reason to doubt that TQM can, and should, be applied to Canadian health care. On a practical level the answer is less certain.

The Theoretical Level

During the course of this research colleagues, advisors, and those interviewed confronted the researcher with several key concerns and objections to the implementation of TQM as they understood the concept. Three critical, interrelated issues became dominant as the study progressed and are deserving

of comment in that they allow the researcher to address, at a theoretical level, whether TQM can be applied to Canadian health care.

First, is the need to explicitly address the concern as to whether a management model developed primarily within profit-oriented environments has any place in the socialized health care system of Canada. The conclusion of this researcher is that there is no reason to believe that TQM is constrained to the environment in which it was first developed and applied. As previously addressed within this dissertation, neither cultural or industrial boundaries have precluded success in applying TQM. Where TQM has fallen short of expectations it can be argued that the outcome has been more the result of imperfect understanding of the concept, resulting in implementation errors, than because of flaws in the concept itself.

Similarly, based on the experience of American health care organizations, both in individual applications and in the National Demonstration Project, this researcher concludes that the concepts and techniques of TQM are transferable to health care settings. These organizations have discovered that their processes, if not their outcomes, are quite similar to that of their industrial counterparts. This is a key point to remember. What needs to be emphasized in the implementation of TQM to health care settings is that the goal is not to "manufacture" patients, a perception that has served to build resistance to the concept, but rather to enhance or manufacture processes that are the best guarantee of quality patient care.

Accepting the facts noted above, the question remains whether the American health care experience is sufficiently similar to warrant transference to Canadian health care. This researcher offers several arguments in favour. At a simplistic level, the willingness and the determination of the two case study organizations appears to suggest that administrative practitioners believe in the transferability of the concept from the American experience. This in no way should be construed as overestimating the status of the TQM process in either organization or as underestimating the challenges that remain for these two hospitals. It does, however, reflect the acknowledged practical value of the concept particularly if one includes those organizations that have reviewed, and in some cases applied, the experience of the two case study organizations to their own operations.

A possibly controversial conclusion on the part of this researcher, intended to reflect the transferability of the American health care experience, is that at their core the American and Canadian health care systems are quite similar. While different funding systems may introduce unique operational imperatives (current financial exigencies and attempts to deal with them in Canada may be minimizing such differences), it is still true that the underlying purpose of both systems is to provide quality health care. Given this fact, and the similar clinical processes by which such quality health care is provided, it would appear that TQM can be applied to the Canadian health care system.

Assuming comparability of the two health care systems, it is also

concluded that Canadian health care organizations have an obligation to consider any process that addresses the challenges facing our system. TQM, with its focus on improving quality and efficiency of operations, its emphasis on continuous improvement, and its empowerment of employees appears to be a more comprehensive and optimistic approach than anything currently available. With a presumed obligation of providing quality patient care, and being in a stewardship position in respect of public funds, TQM has shown sufficient promise to have other organizations consider its implementation.

A second major objection to TQM is a proposition that adoption of the process constitutes an abdication of leadership on the part of senior administration of a hospital. From this perspective, senior administration is viewed as being unable or unwilling to anticipate, plan, and implement critical changes required in their organizations. Senior administration is deemed to have lost courage, creativity, and drive in dealing with the current threatening environments their organizations face.

This researcher counters this perspective by first drawing a distinction between leadership and management. In the dynamic environment that Canadian health care faces the ability to understand, much less manage, all aspects of an organization is simply not practical. True leadership on the part of senior management is achieved by setting a vision for the organization, ensuring that the infrastructure supports this vision, and ensuring that resources are made available for the achievement of this vision. Management

of work processes is then best delegated by management to those doing the actual work and most capable of understanding the need for, and implications of, changes in these processes. If senior management focus remains on managing all aspects of an organization, failing to make the most of its human capital, they will be overwhelmed and incapable of truly leading their organization. TQM is fully consistent with all of these requirements and realities.

A corollary objection is a question over whether empowering employees to make decisions leads to unacceptable risks to patients utilizing the organization's services. From this perspective a manager provides consistent and focused direction that would be lost in a democratic, possibly anarchic, approach to decision making. The process of empowerment is viewed as entailing inconsistency in care standards with dire implications for patients.

This argument reveals a basic misinterpretation of what the concept of empowerment is. It is not a process by which individual employees become free to make decisions in isolation from their colleagues. Rather, empowerment implies an encouragement to identify problems and offer suggestions for improvement to colleagues with a view to enhancing patient care. From the perspective of this researcher then, empowerment implies enhancement, not diminishment, of communication and coordination which in turn leads to higher quality of care. Put another way, for every degree of responsibility granted to employees to manage their work goes corresponding

degrees of accountability.

The Practical Level

Theoretical postulations are fine but it is the practical reality that health care administrators must deal with. From an overview of the two case study hospitals, an overview of pertinent literature, and knowledge of the current health care environment this researcher is left to conclude that the success of TQM in health care is still an open question. While some successes have been enjoyed in the two case study hospitals, the process has not experienced widespread or consistent progress to this point in time. At a more global level there are both factors favouring and hindering TQM implementation.

The factor most likely to facilitate reform of the health care system, and success of implementation efforts in TQM, is the dedication and level of commitment of health care personnel. Although an underlying assumption prevails that a high quality of care is already being provided, this same assumption is related to the fact that all health care personnel have entered their respective professions to serve the health care needs of society. To the extent that this altruistic motive can be tapped the potential for TQM to succeed is enhanced. There is no question that health care professionals will utilize any process that they view as measurably improving their ability to enhance outcomes for their patients.

Related to this commitment level, in a negative sense, is the increasing level of concern being expressed on the part of these same health professionals

that mandated change will be a part of their future if voluntary change does not take place. Most notably, there are concerns that current government efforts at budget constraint, manifested in freezes on hospital funding and related efforts to control practice patterns and care provisions, will result in sub-optimal care for patients and a less than enjoyable work environment for health care professionals. To the extent that TQM provides a more palatable and encouraging approach to reforming health care systems, this fear may facilitate consideration and acceptance of the TQM philosophy.

There is no doubt that individuals graduating from the various medical, nursing, allied professional, and management programs all do so having obtained high degrees of competence in their specialized areas. Furthermore, they have also been proven capable of acquiring complex skills along with the ability to apply those skills in their work environments. There is no reason, therefore, to believe that the tools and techniques associated with TQM should prove to be any more of a challenge to learn than this underlying knowledge. In fact, as Berwick (1990) states, health care professionals may enjoy even more success in understanding and applying TQM skills given their previous understanding of the scientific method and statistical tools. TQM can, therefore, be seen as a philosophy that taps into and makes full utilization of available human resource capital in an ongoing manner.

A high degree of education also engenders an increased desire for participation and decision-making power. Health care personnel are no longer

content to be merely directed. There is a strong and growing belief that their training has given them more to offer and that only through active participation can they achieve higher levels of job satisfaction. TQM, as a management philosophy, supports this and thus could receive higher levels of acceptance than might otherwise be thought. Complementing this factor is a growing desire on the part of managers to have committed and innovative employees. Without a workforce of this nature, there is a realization on the part of managers that many of the problems they face will not be solved, or at least will be addressed only superficially. The only point of contention, therefore, appears to be how to exactly define the level and form of participation of employees to the mutual satisfaction of management and staff.

A number of barriers of significance, however, may preclude successful application of TQM to Canadian health care. These must be considered, and resolved, if TQM is to have more than just superficial success. One of the first barriers revealed in the course of the research was the lack of a sense of crisis in Canadian health care. While some acknowledge the challenges, the vast majority of health care personnel appear to share the view that current environmental exigencies are a temporary abberation easily cured by a change in government. The critical nature of this factor can be explained in relation to the Japanese and American industrial experience. Only a condition of crisis provided the impetus to implement TQM. In the absence of this realization there exists little incentive to initiate and carry through necessary changes with

conviction.

A second set of barriers are the assumptions that health care personnel and organizations have about their operations. First, has been a paternalistic approach to dealing with patients. For the most part, a perception, subtle or otherwise, persists that the medical knowledge of health care personnel makes them the best judge of what is best for patients. The ability, or willingness, to involve patients materially in decisions regarding care is necessary if health care organizations wish to determine, with greater accuracy, the myriad impact of their care processes.

Equally paternalistic, and as much a barrier to TQM implementation and enhanced quality of care, has been the relationship between management and employees. This has been most evident in a sense of infallibility of management and a belief that workers are incapable of innovative thought, existing only to be directed. This inevitably leads to a level of care that, at the service if not technical level, is sub-optimal. Until both types of paternalism are overcome strides in implementing TQM and improving care are likely to be incremental and hard won.

An associated barrier is an assumption that quality of care is already high in health care. This statement is not intended to deride the current efforts and technical competence of dedicated health care personnel. Rather, it reflects the reliance on set standards and technical definitions of care that no longer suffice to ensure the best quality of care and ensure that the rising expectations of

patients are met. It reflects an unwillingness to continually challenge standards of care, standards perceived as sacrosanct, as required by TQM. Additionally, TQM demands that all aspects of a process be assessed and, in the context of health care, implies an increased emphasis on service, or "high touch" as opposed to "high tech", aspects of the entire patient encounter.

The inadequacy of current metrics and internal infrastructure, such as human resource systems, also inhibits the implementation of TQM. Being more susceptible to control and modification by individual organizations, these factors are more appropriately termed challenges rather than barriers. Measurement within health care has tended to focus on activities and volume assessment as opposed to outcome indicators. Continuous improvement requires a candid assessment of all aspects of patient care to determine whether any one procedure, or aspect of a procedure, measurably impacts quality of outcome. Initial efforts have been made in health care to refocus measurement but the lack of experience is likely to make progress slow.

Just as important, and challenging, will be the requirement to refocus human resource systems from being punitive, sporadic, individually orientated, to systems focused on motivating, on a consistent basis, individuals to strive for team- and organizationally-driven goals. It requires alteration of recruitment tactics, orientation procedures, performance evaluations, and reward and recognition criteria. These systems currently overemphasize technical competency at the expense of interpersonal and team-building skills.

Current systems do not necessarily support the work of teams, teams that will increasingly require representation across disciplines and between levels of the organization.

TQM requires the adoption of a long-term perspective on the part of the organization. A current inhibitor to creation and maintenance of this perspective is the horizontal and vertical mobility of personnel, particularly management and physicians, within the health care system. Indicative of societal norms and expectations, this mobility of key personnel in organizations does not allow sufficient time for remaining personnel to commit to TQM. With a large degree of learning required on the part of senior management, and to a lesser extent physicians, turnover implies turmoil. Turmoil is not conducive to gaining the commitment to an organizational philosophy that requires the degree of change mandated by TQM. If there is a perceived lack of commitment on the part of key personnel the rest of the organization will be similarly uncommitted.

No less a barrier to the implementation of TQM in health care is the influence of external agencies, most notably that of professional associations, educational institutions, the health care system generally, and government. To the extent that these agencies fail to adopt the TQM philosophy, or to the extent that their actions minimize the ability of a hospital to implement TQM, success in implementation will be minimized.

First, professional associations, and unions, tend to maintain a narrow,

discipline or union specific focus that does not consider the broader impact of their decisions. This perspective has facilitated the creation of a functionally-oriented model of health care and has led to a fractionalized approach to health care. These professional associations, as with all groups in health care, have only pursued and encouraged collaborative approaches with their fellow disciplines, and in the organizations in which they practice, from the perspective of determining who the primary care-giver should be and who should maintain control of the care process. Achieving synergy in care-giving has not been a consideration.

Similarly, educational institutions have critical impact in that they not only educate but also socialize future generations of health care professionals. The fractured relationships between the professional groups has been enhanced by the lack of collaboration between schools of medicine, nursing, allied professionals, and management. Focus has been placed on training specialists at the expense of emphasizing true collaboration and team focus in the provision of care.

Having stated this, this researcher is inclined to conclude that at present there is no guarantee that TQM will succeed in Canadian health care. While TQM has theoretical, and emotional, appeal there are a number of practical constraints that make an affirmative conclusion difficult to support. The barriers noted above (lack of perception of crisis, paternalistic approaches to patients and staff, assumptions that inhibit change, lack of compatible

infrastructure, impact of external agencies, mobility) will be difficult to overcome. This is true despite some of the forces currently driving reforms in health care, among them being: high levels of commitment; high levels of education; concerns over mandated change; demands for participation; and, forward-thinking leaders.

One key factor that may ultimately facilitate TQM development and health care reform may be that the current environmental crisis afflicting health care is also afflicting other sectors of society. To the extent that this is true there is likely to be greater willingness, and encouragement, of change efforts designed to enhance the responsiveness and relevance of health care institutions. What may be difficult to accomplish within the health care sector alone, may be facilitated by changes necessary throughout society.

Chapter VII

Implementing a TQM Process

Based on a belief in the theoretical applicability of TQM and learning from the experience of the two case study hospitals, this researcher has set the task of establishing practical guidelines for successfully implementing TQM. What follows constitutes only a broad prescription of required steps and challenges of which to be aware. This format is necessary primarily because implementation is unique to each organization. The first requirement, therefore, is to achieve complete understanding of each individual organization. This implies developing an understanding of the skill sets currently available, the style of management currently being practised throughout the institution, the status of important internal systems, and the condition of the organization's external environment. All these factors, and more, must be taken into account in designing a TQM process.

Create a Notion of Change

Prior to any formal implementation of TQM there is a requirement on the part of senior management to prepare the organization for this step. This first requires that senior management develop a high level of dissatisfaction with current operations. Without realizing a level of dissatisfaction it is unlikely that the extent of change and the long-term commitment of time and resources required by TQM will be carried out.

Next, an understanding of what TQM has to offer the organization in

dealing with this dissatisfaction is essential. This requires an education effort that might involve extensive reading, senior management meetings and retreats on the subject, and site visits to other institutions implementing the process. This process is likely to require several months to a year to complete and cannot be foreshortened. Discrepancies in understanding between the senior management team in this initial stage will only manifest themselves later with more grievous consequences.

Unfreezing of the organization is the next step in the process. This can take many forms including open forums where information is exchanged between all disciplines and levels of the organization whereby senior management shares their concerns about the organization and the environment in which it operates. It can also include subtle changes at the leadership level that may involve the following: the nature of information demanded from subordinates changes to reflect an increased emphasis on quality and outcomes, rather than on financial performance; a changed emphasis reflecting a greater demand on the establishment of what customers (either internal or external) truly expect from the organization; and, where greater level of participation and input from all staff is solicited through a variety of formal and informal channels.

At this point there is no requirement to associate any of the above mentioned changes with a TQM process. This in part begins to address questions as to whether or not a change process of this nature requires any

label. In the initial stages it may indeed be beneficial to rely more on actions than to launch a formal TQM process. By doing so, resistance typically associated with introduction of any new method can be minimized. Once the process of unfreezing and subtle introduction of TQM principles is under way, there is likely to be increased acceptance of the formal philosophy at a future point when it is determined that informality of approach has achieved all that it can.

Once the notion of change has been firmly implanted in the organization, a process that may take several months, it is time to undertake and introduce a planned approach to TQM implementation. Certainly the preliminary stages of this planning should be under way well before this point and should consider what modifications are necessary in regards to formal statements of philosophy, training programs, measurement systems, human resource systems, and other organizational systems. This plan should be clearly communicated throughout the entire organization so that in a time of turmoil engendered by this change all members understand where the organization is going and how it proposes to get there. A plan of this nature does not demand exquisite detail. In fact a plan too explicit in detail may prove more of a hindrance than a help as flexibility in approach may be necessary to deal with challenges that arise. Without some formalization of the approach a sense of drift is likely to develop, rather than a sense of commitment to a new organizational order.

Training in TQM

Once the process of creating a notion of change is under way attention must begin to focus on providing the skill sets to an organization's personnel to enable them to cope with the change and facilitate achievement of the organization's new philosophy. No illusions should be entertained that training of this nature is not required or can be superficially addressed. TQM is a thought revolution in management and requires training to ensure that the transition is made and maintained.

One of the first decisions to be made is what form will the training take and how to develop the course. In this regard it is recommended that the literature be reviewed, with particular reference to the teachings of Deming and Juran. This will allow the organization to develop an understanding of the most critical elements of knowledge to impart to its personnel. The assistance of a consultant may be beneficial but only if an organization has taken the preliminary steps of determining, at least in broad terms, what it is they want their employees to be able to do.

The development of educators and facilitators from within the organization is recommended. First, it ensures development of an organization's own internal resources, resources that can be accessed over and over again. Second, it assures more complete understanding on the part of educators/facilitators as to the organizational milieu, and thus better identification with personnel going through the course. This is also likely to enhance credibility to those

receiving instruction. Finally, the use of internal facilitators has a beneficial side-effect of creating internal champions of the process. These individuals can then influence acceptance of the process within their own areas of work as well as across the organization. It is in the training of these educators/facilitators that the external consultant can play a vital role.

The actual content of TQM courses is again a matter of individual organizational choice, dependent in large part on the organizational assessment conducted prior to this and on an appraisal of what key elements the literature calls for. The philosophical content of the initial course in TQM should be held to a minimum assuming that information of this nature has already been communicated in other forums. It may be important, however, to reemphasize the reasons for committing to TQM as an organizational philosophy, the benefits that can accrue to the organization, its staff, and, most importantly, its patients, and to clearly articulate the expectations for each participant on conclusion of the training session. A large component of the course content should focus on building the skills of managers, physicians, and staff that are required to successfully implement TQM. The focus should be on imparting skills that facilitate the creation and enhancement of the following skills: customer focus; understanding of systems; understanding of variation; team effort; problem-solving; management of change; process mapping (flow-charting); and, measurement and benchmarking of results.

The training sessions, wherever possible, should have representation from

all departments and professional groups, including physicians. It was evident from the two case study organizations that the ability to interact with, and learn of the challenges facing, other areas served to facilitate a process of understanding between groups that would not otherwise have existed. This encouraged breaking down of barriers between areas and provided the mechanism whereby functional areas established a basis for building teams in the future. The most difficult challenge will of course be in involving physicians. This challenge will be addressed later in the dissertation.

The one exception to this mandate to train cross-functionally is that of providing training to managers first. Given the assumption that managers are to play a key role in the success or failure of TQM in their particular area, they must be provided with the opportunity to understand what they are to facilitate before they are faced with a group of employees demanding such foreign concepts as empowerment. Without such previous preparation they are likely to react adversely. Nor should they have to experience the level of insecurity likely to result from having their staff know more than they do about a major organizational initiative.

This initial round of training should be intensive. It should likely be more than 2 full days duration. Only through such prolonged and intense sessions will the concepts of TQM begin to become meaningful to participants. Furthermore, it is only with such intensity that the full benefits of having cross-functional sessions will be realized. If employees are allowed to return

to their units during each work day, or after one day sessions, they are unlikely to begin identifying with the larger issues facing all staff in the organization.

Training should not stop with these initial sessions. While most participants are likely to leave the session enthused, such enthusiasm is liable to have a short half life. It must be continually reinforced and upgraded, particularly as the organization learns from its initial experiences. There should also be no doubt that errors and omissions will be made in training and these will have to be addressed in subsequent upgrade sessions. Only by such constant upgrades will individual skills remain current. Furthermore, such an investment continues to demonstrate the organization's ongoing commitment to the TQM philosophy and the staff's major role in integrating that philosophy.

Equally critical in reinforcement of skills, and in facilitation of continuous efforts, is the provision of structured application opportunities for all participants at the conclusion of each session. Without the opportunity to apply acquired skills in the work environment the entire exercise is likely to remain an academic exercise. Reality-based application encourages internalization of skills and may provide early success to encourage future application.

Whether educational sessions are held on the organization's premises or not is really unimportant. The only caution is to ensure that if sessions are

held on-site that interruptions necessitated by day-to-day workload be minimized, if not eliminated altogether. Full benefits of the sessions will be diminished if participants are not focused on the task at hand. Furthermore, they may be encouraged to view TQM as a topic infringing on their "real" work if not dissuaded from that viewpoint at the earliest possible time.

Recognition should also be provided to the educational achievements of participants. This comes in up-front introductory remarks by senior management. It may also take the form of senior management conducting a limited number of seminars. This again reinforces the perception of value that the organization places on this initiative and has a related benefit of keeping senior management informed and learning in TQM. Recognition efforts must similarly be provided at the conclusion of all sessions. The means by which this can be done can range from the provision of certificates of achievement, recognition in facility newsletter, or by any other means that publicizes the achievement.

Providing the Infrastructure

One of the first elements of an infrastructure supportive of TQM is the Quality Council. This is a group of individuals who are mandated to provide overall direction and guidance in the development and implementation of an organization's TQM process. Basic functions of the Council should be to identify major cross-functional initiatives and to monitor the status of the TQM process against plans. Ideally its membership should include all constituent

groups, even including patients and suppliers of the facility. Critical to the perceived importance and value of this group, however, is the presence and active participation of senior management. Without this involvement the Quality Council is unlikely to be successful in its mandate.

An early decision to be made is to what degree the Quality Council should be a information gathering and dissemination body versus an active catalyst in the process. There is no doubt that some sort of balance needs to be struck between the two. However, it is the belief of this researcher that, in the best interests of furthering the TQM process, the Quality Council must be more active in the latter capacity. This entails active identification of quality improvement initiatives, delegation of responsibility, and measurement of results. Without such a clear mandate the Quality Council, and indeed the quality improvement process, may tend to drift.

A second key component of the organizational infrastructure, and one that may be driven by the Quality Council, is the drafting of Departmental Quality Improvement Plans. These are plans that describe the actions that a unit, of whatever size, will take to facilitate the process of quality improvement in their respective areas and in support of the overall organizational effort. The plans should document departmental mission statement, steps taken to identify customers (both internal and external), steps taken to identify customer requirements, steps taken to identify gaps between customer requirements and current ability to meet those requirements, and processes by which such gaps

will be addressed and future performance monitored.

These departmental plans must emphasize the basic tenets of TQM, including a focus on improving processes that measurably impact customer requirements. They should also be representative of the input of all staff within a particular area and may call upon the expertise of internal facilitators/educators. Each departmental plan should then be subsequently approved by senior management or the Quality Council, or both. This ensures consistency of approach among departments, compatibility of each set of plans, and adds legitimacy and credibility to the process.

The various components of the traditional human resources system must also be altered to reflect the emphasis on the principles of TQM. This begins with the process and focus of recruitment and selection. Interpersonal skills must be given equal emphasis to technical skill as criteria for hiring. Individuals must be selected on their perceived ability to contribute to organizational goals. Panel interviews and hiring decisions, with staff representation, must become the norm. Practices of this nature, of course, require providing staff the necessary skills to carry out these tasks with competence. This will require extensive collaboration with labour unions.

Orientation must become more intensive. It must not only be a time when staff are provided with information on benefits, union representation, fire procedures, and location of the cafeteria. An up front investment in staff is critical to their future success in the organization and will serve to emphasize,

at an early stage, the significance of each employee. Orientation must also include enrolment in, and completion of, the initial TQM skills course before commencement of duties is allowed. Exceptions should be made only under extraordinary circumstances.

Finally, performance appraisal and recognition systems must be refocused to place equal, if not greater emphasis, on teamwork and enhancing customer focus as opposed to financial performance. The axiom, "Whatever gets rewarded, gets managed", should be taken to heart. If organizations are serious about their commitment to TQM they must make equal efforts to change their systems of assessing and rewarding performance. Efforts to alter these systems can begin at the managerial level, primarily because of the flexibility the lack of collective agreements provides. Efforts at the staff level will either require a great deal more ingenuity or the active participation of unions if something other than superficial modifications are to be made.

Clinical areas are not to be ignored. Efforts must begin as soon as possible to ensure that clinical processes are assessed and altered. In a health care institution, whose business revolves around clinical processes, the greatest potential for impact is here. A formalized mechanism that involves physicians in critically assessing care processes is essential. Whether this takes the form of the Value Improvement Process or Medical Quality Improvement, as at the University of Alberta Hospitals, or Utilization Management and Managed Care, as at the Misericordia Hospital, a process for maximizing clinical impact

must be developed and implemented as soon as possible.

Measurement and Benchmarking

The ability to measure and continuously improve performance are key elements of the TQM process. Measurement is key in providing feedback to quality improvement teams, senior management, and the Quality Council, enabling them to refocus efforts as necessary. Skills training in identifying key process measures and monitoring such measures should be an integral part of TQM courses. Measurement in TQM should not concentrate merely on symbols of progress, such as number of teams formed or quality improvement suggestions offered, but rather should focus on substantive elements, such as improvements made that measurably improved customer satisfaction. In order to develop these key indicators of improvement it is necessary to first determine customer expectations.

In order for measurement to have even greater meaning, there must be complete understanding of the process to be improved. All major processes, that is those impacting on customer perceptions of quality, have to be identified from beginning to end by way of the flow-charting procedure. Without this knowledge it is unlikely that departments will be able to direct their improvement efforts with any effect despite having awareness of customer dissatisfaction or poor process performance. Departments must know what factors have resulted in given levels of satisfaction or dissatisfaction before implementing improvements.

A process of flow charting is also important if departments and organizations are to achieve higher levels of quality improvement available through benchmarking. Benchmarking is the process of measuring the performance of any one process against that of a same or similar process in another organization, either within or outside of the health care industry. This encourages competitive improvement efforts. Benchmarking can only be successful, however, if process flow charting is in place. Failure to do so again results in an inability to understand where improvement efforts should be directed for the most effect. Thus, measurement, process flow charting, and benchmarking skills should all be included in TQM courses and should form an integral part of departmental quality improvement plans.

Quality Assurance versus Quality Improvement

A final key consideration lies in determining whether there is a role for a Quality Assurance function in the organization. Over time, a quality assurance function, in the traditional sense, should be eliminated. However, until such time as new measurement criteria and processes are established this function should be maintained although its mandate should be constantly evolving to support TQM efforts.

There is also a need to consider whether a Quality Assurance function is to be replaced with a Quality Improvement function. The necessity of developing this function or department is determined by the supportive role that it can play in the activities of senior management, the Quality Council, and quality

improvement teams. The role of this function is not to become a driving force for TQM but rather to support initiatives of other groups by acting as a resource. Caution must be exercised in limiting the size, bureaucratic nature, and power of this function. Furthermore, creation of a quality improvement function must not act to diminish a sense that quality is everyone's job.

Key Roles in TQM Implementation

Implementing a TQM process in an organization requires that the Board and Senior Management undertake key initiatives, of a symbolic and substantive nature, that aim to win the commitment of middle management, staff, and physicians to the changed organizational philosophy.

Senior Management

Senior management are the key individuals in implementing a TQM process. They must be convinced of the utility of the concept and must be willing to commit substantial time and resources to achieving the transformation. This is particularly true of the Chief Executive Officer. Without his/her commitment the TQM process will not progress far. This individual must also commit to the organization and to implementation of the concept for the long term. Leaving an organization shortly after initial implementation of TQM is likely to mean its demise as an organizational initiative.

The key step senior management must take is to develop a mutual understanding as to what TQM has to offer and how it fits with the current

organizational culture. Without this initial common understanding, differences in opinion as to the direction of the effort will surface later. Part of this understanding must relate to just how difficult the change process will be and the extent of time commitment that will be demanded from senior management. It must be made explicitly clear that TQM is not a program, but rather a process that each senior manager is committing to for the duration of their time in the organization. This is likely to be the most difficult realization to internalize given the short-term perspective to which most managers have become accustomed.

No less onerous is the time commitment demanded of senior management. This entails not only symbolic acts, such as presence at the graduation of classes in TQM or speaking on the organization's commitment to TQM, but must entail a substantive commitment of time in more meaningful tasks. Senior managers should begin to live the tenets of TQM particularly as it relates to their immediate reports and fellow managers. They must seek to empower their subordinates by making fewer decisions (allowing subordinates to take up more tasks), they must adopt a systems perspective (not seeking out individuals to blame), and they must demand more than just financial data in developing their decisions.

Senior management must also commit upwards of 30% to 50% of their time to actively participating in TQM initiatives. This implies active participation on the Quality Council, leading and participating in quality improvement

teams, acting as instructors in TQM sessions, becoming more available to listen to and act on concerns of employees at all levels of the organization, and being involved in continuously reassessing the progress of TQM in the organization. All these activities must be practised with consistency. TQM must always be seen as the priority of senior management. Failure to do so is the best guarantee that the process will stagnate as the remainder of the organization becomes as distracted as senior management.

Most importantly, senior management should view continuing education in TQM concepts and techniques as one of its most critical obligations. As TQM is viewed as a continuous journey so too should education on the part of senior management. One of the most dangerous assumptions that senior management, or anyone else, can make about their knowledge of TQM is that they have achieved complete understanding. As TQM changes the organization, there is a requirement to constantly adjust the thinking regarding future stages and applications of the concept. If senior management is to lead the process then they must constantly be adjusting and adding to their knowledge base; they must continuously benchmark their knowledge.

The Board

The Board is likely to follow the lead of Senior Management with respect to TQM, especially in the initial stages of implementation. Despite the acknowledged leadership role of senior management, the lack of understanding and involvement of the Board in quality improvement efforts

will eventually weaken efforts to adopt the concept.

In fulfilling their fiduciary role it is incumbent upon the Board to develop an understanding of TQM and commit materially to fostering its implementation. This translates into availing themselves of education opportunities in TQM, providing resources and support that facilitate efforts of senior management, encouraging a long-term commitment to the process, and adjusting the organization's mission to encompass a commitment to TQM.

Another key reason for establishing understanding and commitment of TQM in the Board relates to their responsibility to recruit the Chief Executive Officer should the need arise. If the Board does not value TQM, or does not have an intimate understanding of the concept, they are unlikely to place high value on recruiting an individual who is capable of continuing the implementation. Furthermore, even if there is symbolic commitment to the concept, if intimate understanding is not present, it is possible that despite the best intentions in recruitment, the direction of the implementation may stray from the most profitable path.

Middle Management

One of the most likely areas of resistance to TQM will be middle management. The prime reason for this is that their role requires the greatest change or redefinition. The organization must be aware of this potential resistance and plan to address it well before the problem manifests itself.

The first step to be taken is to clearly define what management's new role

will be in a TQM organization. This must be a process of definition that discusses role change in practical, not philosophical or nebulous, terms. Questions such as what duties managers are to delegate, what duties managers are to assume, and on what basis will their performance be assessed must be addressed quickly and honestly. The lack of such clear definitions will result in high levels of anxiety that will only inhibit the personal performance of managers, with resultant adverse effects on the areas they manage.

Senior management must also commit substantial time and resources to coaching and supporting those individuals that report directly to them as they make the transition to TQM and the new roles defined for them. It must be made clear that for the most part current management personnel have successfully operated their areas for many years and will have difficulty making the required transition without support. Senior management must acknowledge that managers deserve as much time to make the transition as anyone else in the organization. This is why making alterations to the organization's infrastructure is so critical; it materially signals management as to what will, and will not, be rewarded and provides a base from which managerial style can be adjusted.

Staff

There are at least three areas to address to ensure that both the professional and support staff will work to facilitate the implementation of TQM. The organization must begin to address skepticism related to the

implementation of the concept, define empowerment, and break down barriers between functional areas.

The organization must be aware of the skepticism that is likely to be greet any new management initiative. This will be particularly true of TQM which may appear to demand greater efforts on the part of employees without any immediate gain. The only way to begin addressing these concerns will be through a combination of visible senior management leadership, a material commitment of resources to TQM implementation, serious attempts to listen to and act upon concerns and suggestions on the part of staff, and a concerted and ongoing effort to invest in the skills and education of staff. Staff will want to see results and these are the key means of providing them.

One key area of potential friction if not addressed at an early stage, is to explicitly define the concept of empowerment. If nebulously defined, empowerment may be construed as the ability of each individual employee to define and assess his own job and results. TQM may indeed result in the level of anarchy claimed for it by its detractors if such a definition is allowed to prevail. It must be made clear that empowerment, while implying greater levels of autonomy and responsibility for employees, demands equal levels of accountability for process and outcomes. The definition of empowerment must take into account concepts of expectations and customer focus.

The customer focus aspect of TQM must be emphasized in attempts to break down barriers between functional areas. Without such cooperation

between areas, the largest areas of improvement, that involving cross-functional systems, are unlikely to be addressed. The cross-functional training sessions can begin the process of developing this sense of teamwork. However, by itself, this is an insufficient means of achieving the desired end. What is required is a specific focus on developing cross-functional teams and improvement projects. This process must be developed and led by senior management or the Quality Council and supported by an infrastructure that rewards teamwork. Departmental quality plans and quality indicators that encompass a focus on internal customers is one means of formalizing this desired end.

Medical Staff

Physicians represent the greatest challenge in implementing TQM. They are unlikely to be willing to commit time to training sessions and quality improvement teams as they are not employees of the organization and thus any time committed to such activities has a direct impact on their economic livelihoods and leisure time. Compensating physicians for time lost from practice is impractical for most health care institutions given the level of compensation enjoyed by physicians. Yet physicians have too large an impact on operations of an organization, and the ability to implement TQM, to ignore.

An initial step may be to work with a select number of influential medical staff members. These may be individuals salaried by or having administrative duties with the organization. They may also be individuals identified as

leaders of the medical staff on most issues. Being able to convince these individuals of the utility of TQM may serve to enlist them as champions in driving the concept further with respect to the remainder of the medical staff.

Recognizing the value placed on the time and resources of medical staff, another key way to gain the commitment of physicians may be to concentrate initial TQM efforts on improving processes that they or their patients rely upon. By providing tangible improvement results that measurably impact on the care of their patients, medical staff are likely to support continued efforts in TQM. Processes for improvement should be identified with the assistance of physicians and may include speeding up the process of admission, enhancing turnaround time of diagnostic tests, enhancing turnaround time in operating suites, and minimizing delays in other treatment areas.

One further option may be to include commitment to TQM, based on training and participation in quality improvement teams, in the credentialling process. An action of this nature will spark heated debate not only among administration and medical staff, but also among those who advocate a voluntary approach to gaining commitment of TQM participants. However, if it is expected that all management and staff are to be appraised and rewarded on the basis of their contributions to the new organizational philosophy, no less can be expected from medical staff.

Final Considerations

Adopting a TQM philosophy should force other more global realizations

upon an organization. Specifically, an organization must begin to view itself as part of a larger provincial and federal health care system. An organization must come to view itself as a partner, in a customer/supplier/buyer relationship with its counterpart organizations. This mandates a level of cooperation and exchange of information not currently practised within health care, nor assisted by current funding guidelines within Alberta. Only through enhanced levels of cooperation and information exchange can benchmarking and continuous improvement achieve their true potential.

Cooperation and information exchange are not only necessary for the continuous improvement of individual institutions but they also benefit the health care industry as a whole. In fact, as users of public funds and providers of care to a larger community, which in this case may be considered the province of Alberta, health care organizations are under an obligation to share continuous improvement information and benchmarking data. Only by doing so can they be seen to addressing the mandate they have been given by the public, which is to maintain and enhance health care status.

Similarly, if TQM is adopted by an organization, they must seek to involve more than just their counterpart organizations in the improvement of health care. Greater efforts are required in involving, and influencing, patients, the public, suppliers, accrediting bodies, educational institutions, professional associations, unions, and political parties. Each of these groups has data or impact on the outcome of care, how care is evaluated, what incentives are

available for enhancing continuous improvement, or on the ability of health care organizations to provide care. TQM mandates that all of these groups become partners in continuous improvement in health care. Encouraging that involvement becomes the larger mandate of health care organizations adopting TQM.

There is no question that the transition to a TQM philosophy in an individual health care organization and in the larger health care system will be difficult. There will be slow and halting steps on the journey called total quality management. What must be kept in mind are the improvements that have been made in other industries and the impact on health status that can be achieved if health care professionals can translate these same results to the Canadian health care system. With determination and a vision of the potential, these results are within reach.

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APPENDIX A

Audit Checklist for the Deming Application Prize

APPENDIX A

Audit Checklist for the Deming Prize Application

1. Corporate Policy

   What is the corporate policy for TQM? What goals and measures are employed in order to plan, design, produce, sell, and assure good products or services? How successful is it, and how is it checked? (Policy formation, deployment, implementation, and audit).

2. Organization and Administration

   What kind of organization is employed to carry out and administer statistical quality control? Other issues to be studied include clarity in authority and responsibility and coordination among divisions, committee activities, and small-group activities. (Cross-functional organization)

3. Education and Extension

   What kind of education programs are routinely provided, such as seminars on SQC (Statistical Quality Control), both within and without the company? To what extent are the concepts and methods of SQC understood? How is the effectiveness of these programs confirmed? What education is provided to vendors and subcontractors? How is the suggestion system carried out?

4. Implementation

   What kind of activities are conducted to assure TQM in such fields as

R&D, design, purchasing, manufacturing, inspection, and sales. For instance, the following items must be checked:

i. Profit management

ii. Cost control

iii. Purchasing and inventory control

iv. Production-process control

v. Facility management

vi. Instrumentation control

vii. Personnel administration

viii. Labour relations

ix. Education programs

x. New-product development

xi. Research management

xii. Vendor relations

xiii. Grievance procedures

xiv. Use of consumer information

xv. QA (Quality Assurance)

xvi. Customer services

xvii. Customer relations

(a) Collection and use of quality information

How is the information transmitted from the head office and distributed among plants, sales offices, and departments?

(b) Analysis

How are important quality problems defined, and how are statistical methods used for problem solving?

(c) Standardization

How are standards established, used, and revised? How is standardization maintained, and how is consistency maintained among standards?

(d) Control

How are control points established? How are counter-measures adopted? What is the control system for emergency measures, and how is it administered? How are various tools such as control charts used? Are the production processes under control?

(e) Quality Assurance

How is the quality-assurance system administered and diagnosed? What is the system for new-product development? How are quality functions deployed? What preventive measures exist in the safety and product-liability areas? What measures are employed for process control and improvement? How are process capabilities managed?

5. Effect

What impact has TQM's introduction had on product quality? What impact has it had on service, delivery, cost, profits, safety, and the

environment? Does the company manufacture and sell top-quality products? What intangible benefits has it gained?

6. For the Future

   Does the company recognize its current strengths and weaknesses? Are there plans to carry the TQM program forward? How do these plans, if any, relate to corporate long-range policy?

APPENDIX B

Quality Framework and Plans

for the

University of Alberta Hospitals

and

The Caritas Health Group (Misericordia Hospital)

APPENDIX B

Quality Framework and Plans for the University of Alberta Hospitals and The Caritas Health Group (Misericordia Hospital)

1. University of Alberta Hospitals Framework

The graphic below demonstrates the model developed to implement TQM at the Hospitals. The top part of the model focuses on the continuous process of measuring performance against customer expectations, analyzing and improving work processes to ensure customer expectations are met, evaluation of results, and standardization of improved processes. Measurement begins again as the cycle continues.

The four columns on the bottom describe the areas that must be addressed if TQM is to be successful. All employees must be aware of the institution's vision and values including (1) the mission statement and core values and how they form the basis for decision making; (2) the focus on the customer; (3) the concepts and applications of TQM and; (4) the impact of TQM on hiring and orienting.

Training must be provided to ensure staff have personal leadership skills, coaching and team skills, and skills in use of QI tools. For most

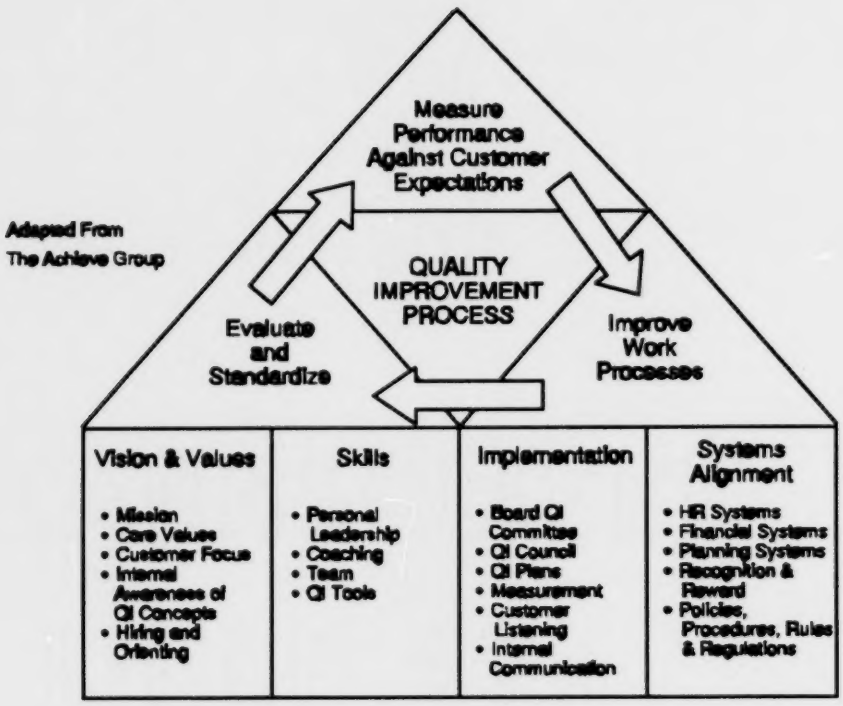
institutions, implementing TQM means a significant increase in the amount of training provided for employees.

Systems must be put in place to ensure a smooth implementation. At the Hospitals, a Quality Improvement Committee of the Board has been formed, and a Quality Improvement Council (QIC) has been established. (Members of the QIC include the President, Vice Presidents, Director of Q.I., President of Medical Staff, and the Chairperson of Medical Staff Advisory Board). These two bodies lead the TQM initiatives and monitor progress. A Corporate Quality Improvement Plan has been developed and specific Department Plans are based on the Corporate Plan.

Increasingly, decisions are based on measurement. Customer listening has become a major focus and in the last year, corporate initiatives include a Patient Satisfaction Survey, Physician Satisfaction Survey, and a Referring Physicians Satisfaction Survey. Individual departments are also measuring customer satisfaction.

The fourth major area is that of Systems Alignment. Human Resources, Financial and Planning Systems, Recognition and Reward, and all policies, procedures, rules and regulations must be "aligned" to ensure

that roadblocks to TQM implementation have been removed and these systems are congruent with TQM.



Adapted From
The Achieve Group

2. University of Alberta Hospitals Quality Improvement Plan

UNIVERSITY OF ALBERTA HOSPITALS

QUALITY IMPROVEMENT PLAN

APPROVED BY QUALITY IMPROVEMENT COUNCIL
DECEMBER 1990

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"There is no room for second best in the care of the ill and the injured. Nothing less than world class care will suffice. Every component of the hospital must strive to do it right the first time; whether involved in directly caring for patients or supporting those who do. This our obligation to the people of Alberta."

BACKGROUND

The University of Alberta Hospitals has almost 7000 employees, 1500 students, and provides care for 500,000 patients annually. The budget is in excess of $220 million dollars. The Hospitals is preparing itself to successfully operate effectively in the 21st century. To do this, it must rebuild morale, develop new skills and reinforce the Hospitals commitment to quality patient care, education, and research. The University of Alberta Hospitals recently enunciated Mission Statement (Appendix A); Reason For Being (Appendix B); Core Values (Appendix C) point clearly to the Hospital's resolute commitment to patients and employees.

Quality Improvement Process has been chosen by the Board and senior administration as the management philosophy that will guide us in achieving our goals.

DEFINITION OF QUALITY

The University of Alberta Hospitals believes that quality is a set of values endorsed by all UAH staff and that it is demonstrated through exemplary patient care, education, research activities and the effective management of both fiscal and human resources. Patients will judge us not only by the care they receive but from their "total experience" at the Hospitals. Every encounter with a patient is a moment of truth when quality will be judged. It is our goal to excel in all 3 rings of perceived value for both *external and internal customers.

* NOTE: Every facet of the Hospitals operation involves both internal and external customers. Who the customers are is determined by the individual and/or work group.

External Customers	Internal Customers
- patients, families	- other employees
- referring General Practitioners	- Doctors
- Department of Health	- Residents/Student Interns
- suppliers	- Board
- public	- students
- other Health Care Organizations	- Faculty of Medicine

WHAT IS QUALITY IMPROVEMENT

Quality Improvement is a strategic, integrated management system for achieving customer satisfaction which involves all managers and employees and uses quantitative methods to continuously improve an organization's processes (T. C. Hull, 1990). In addition, efforts to enhance safety and improve the quality of working life of University of Alberta Hospitals employees also contributes to our Quality initiatives.

There will be a move away from attempting to assure quality to actually measure and improve the quality of all products and services. There must be a fundamental shift in the culture of the organization from the traditional management approach to a new value that focuses on continuous improvement. This paradigm shift is summarized below:

TRADITIONAL	QUALITY IMPROVEMENT
OPINION	DATA
REACTIVE	PROACTIVE
OUTPUT/RESULTS	PROCESS
INDIVIDUAL	TEAM
ADMINISTRATIVE AUTHORITY	PARTICIPATION/EMPOWERMENT
INTERNAL FOCUS	CUSTOMER FOCUS
QUALITY ASSURANCE	CONTINUOUS IMPROVEMENT
MANAGING	LEADING

A STATEMENT OF PRINCIPLE: EMPLOYEES HOLD THE KEY

University of Alberta Hospitals' employees hold the key to the quality improvement initiative. Motivated, highly-skilled employees will enable UAH to improve all three rings of perceived value. This fundamental belief lies at the root of our Mission Statement, Reason for Being, and Core Values. If we can learn to live our values, we will create a healthy, functional environment which nutures quality and service. To achieve our quality objectives we must achieve a quality environment. Employees are University of Alberta Hospitals most valuable asset; we will empower them to take charge of the quality improvement process.

PROCESS

University of Alberta Hospitals proposes to establish a simple, functional structure to drive the quality initiative. Each Director will appoint a Quality Coordinator (role outlined in Appendix D). After the 1st year, the Director and Coordinator may be the same person. Each Department will report on their quality initiatives through their Vice-President to the Quality Improvement Council (Terms of Reference - Appendix E).

ACCOUNTABILITY

The quality initiative is to be line driven and staff supported. Each Vice-President, Director, and Manager will formulate quality objectives and develop an annual plan. Responsibility for the success of the quality initiative is the responsibility of each individual Director and Manager in partnership with their staff.

QUALITY OBJECTIVES

University of Alberta Hospitals recognizes that quality improvement is not a quick fix, but rather a way of life. This is a long term proce . However, it is important to know where we are headed on the quest for quality. Where do we hope to be in five years? Here is a summary of our five-year goals:

Five years from today we will have accomplished the following:

CULTURE

* A customer focused culture is firmly established, where employees willingly take the initiative to identify and exceed customer expectations (both internal and external customers.)

* Employees are proud to work for UAH and look forward to coming to work.

* Employees own their jobs and take pride in the results they produce.

* All employees will be living the Core Values.

SERVICE QUALITY

* We have in place quality measures and each year will see an improvement in the indices.

* Our customers and suppliers have become an integral part of our quality improvement process.

* We are recognized as health care leaders not only in technical expertise but also in the areas of service and quality.

INDUSTRY LEADERSHIP

* Health Care Professionals from across North America are visiting UAH to see how successful quality program is run in a hospital.

SKILLS

* All employees are equipped with superb operational, communication, and problem solving skills.

QUALITY & PROCESS IMPROVEMENTS

* All supplier specifications are up-to-date and validated,

* We have in place excellent supplier certification programs. Suppliers take part in our quality training.

* We participate annually in a world-class quality audit and score in the upper quartile.

* Our cost of quality is dropping steadily. In particular, our cost of nonconformance (errors) has been cut in half from year 1 levels.

* We will apply for the Canadian Business Award of Excellence Prize.

APPROACH TO ACHIEVING THESE OBJECTIVES

Objectives for this first year of University of Alberta Hospitals' quality initiative will be modest. We will focus our energies on three critical areas; awareness, skills, and process.

AWARENESS: IMPROVEMENT THROUGH PEOPLE

All employees must be made aware of the absolute importance of quality to the success of our Hospital in achieving its goals.

This will be accomplished through:

1) Executive presentations, memos, speeches, articles;

2) Introduction to Quality Workshops which all employees will attend;

3) QI Orientation conducted for all employees at all levels of the organization.

The theme of our quality initiative will be "IMPROVEMENT THOUGH PEOPLE." This theme is consistent with our core values. All promotional material connected with the program will echo this theme.

SKILLS

Improving individual employee skills is at the heart of our quality initiative. University of Alberta Hospitals is already a leader in providing first-class patient care, education, and research. Although deficiencies in the area of technical training will continue to be addressed, our focus will be on personal, team and coaching skills. This process is well underway:

1) Frontline Leadership classes have been running since 1988 and approximately 1/2 of all managers have graduated;

2) groupAction classes began in April 1990 and approximately 1/2 of all managers have attended;

3) WORKING classes began in May 1990;

4) QUEST will be implemented in November 1990;

5) Enhanced Service Process will begin in Fall 1991.

Information on statistics and process control techniques will be provided when necessary.

SPECIFIC OBJECTIVES YEAR 1 & 2

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
PHASE I		
1. Executive Retreat	President	February 1990
2. Board Approval of QI Policy & Plan	President	July 1990
3. ISQ Workshop for V.P.'s and Directors	Director-Education	March 1990
4. Quality Objectives are part of strategic plan	President/ Vice Presidents	
5. Follow-Up to Executive Retreat	Director Q.I.	November 1990
6. Attend conferences and do site visits	President/ Vice Presidents	Ongoing
AUDITS		
1. Follow-up O.E.S.	President/ Vice Presidents	Fall 1991
2. Achieve Examination	Director Q.I.	July 1990
3. Service Culture Readiness Audit (S.C.R.A.)	Director Q.I. (pilot areas)	October 1990
4. Expand S.C.R.A.	Director Q.I.	May 1991
PHASE I		
STRUCTURE		
1. V.I.P. initiated (overview of program - Appendix F)		1988
2. Established Quality Improvement		

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
Council		September 1989
3. Develop Q.I. Policy		January 1990
4. Director Q.I. appointed		January 1990
5. Approve Q.I. Plan		July 1990
6. Establish Service Q.I. Committee (Terms of Reference - Appendix G)		August 1990
7. Establish Medical/Nursing Q.I. Committee (Terms of Reference - Appendix H)		Done
8. Hire Q.I. Staff		By August 1990
9. Appoint Quality Coordinators		
Phase I	Department Directors	September 1990
Phase II		February 1991
VISION & VALUES		
1. Publish Mission Statement		1988
2. Develop Reason for Being & Core Values		February 1990
3. Publish Reason for Being & Core Values	Communication	October 1990
4. Develop list of management behaviours to ensure all managers understand how to live them.	Department Directors	
5. Link Reason for Being & Core Values to quality initiative in all communications	Director Q.I. Communication	Ongoing
6. Incorporate Reason for Being & Core Values into Hospitals' Orientation and Management Orientation	Director Education	Sept 1990

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
7. All employees aware of Mission, Reason for Being & Core Values	Director Q.I. Communication	Sept 1991
8. Establish the ability to live the values of performance expectations for all managers, executive, and incorporate same into the performance appraisal system	Director - Human Resources Director Q.I.	Sept 1991
CUSTOMER LISTENING		
1. All Departments determine who their customers are (internal & external)	Department Directors	Jan 1991
2. Increase awareness of importance of asking what they want	Communications	Ongoing
3. Use QUEST program to train employees in customer identification	Director-Education	Begin Nov 90
4. Develop customer listening methods:	Department Directors	Jan 1991
4.1 meet with customers	Department Directors	Jan 1991
4.2 develop informal surveys	Department Directors	Jan 1991
4.3 develop formal patient satisfaction survey	Director Q.I.	By Jan 1991
5. Circulate results of patient satisfaction survey	Director Q.I.	March 1991
6. Expand use of patient satisfaction survey	Director Q.I.	March 1991
7. Use ESP program to		

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
further validate customer expectations & requirement	Director Education	November 1991
INTERNAL COMMUNICATIONS		
1. Incorporate Q.I. communication into overall communication plan and policy.	Communication	Dec 1990
2. Communicate re: Q.I. Plan Plan and progress through:	Director Q.I.	Ongoing
2.1 Advisory Committee	Director Q.I.	Ongoing
2.2 Pink Advisory Sheet	Director Q.I.	Ongoing
2.3 PULSE, NUVO, & Clerical Newsletter	Director Q.I.	Ongoing
2.4 Orientation (new employees)	Director Education	Sept 1990
2.5 Management Orientation	Director Q.I.	Sept 1990
2.6 Individual letters to employees	President	Jan 1991
2.7 Orientation Presentation (video) for all employees	Director Education	Jan 1991
3. All Directors prepared to present the 3 Rings of Perceived Value and Department specific plans	Department Directors	Nov 1990
4. External speakers at Bernard Snell Hall (1 hour) monthly - eg. Barry Sheehy, AGT, Xerox, Ron Sepielli	Director Q.I. Director Education	October 1990
HIRING & ORIENTATION		
1. Commitment to quality and service become a	Director Human Resources	Sept 1990

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
hiring criteria		
2. Demonstration of commitment to quality and service become a criteria for promotion	Director Human Resources	Sept 1991
3. Hospital and management orientation include information on Q.I.	Director Education	Sept 1990
4. Determine criteria for determining commitment to quality in:		
4.1 hiring process	Director Human Resources	Sept 1990
4.2 assessment of performance	Director Human Resources	Sept 1991
ALIGNING SYSTEMS		
1. Develop Departmental Quality Plan - Phase 1 Phase 2	Department Directors	Jan 1991 Apr 1991
2. Ensure Departmental Quality Plan is incorporated into operating plans and objectives.	Vice Presidents	Jan 1991
3. Form Departmental Q.I. Committees.	Department Directors	
4. Examine policies and procedures to determine their "fit" with the Q.I. process:	Department Directors	
4.1 Establish "dumb rule" days/Task Force/ suggestion system.	Director - QI	Jan 1991

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
4.2 Examine policies up for review in light of Q.I. process.	Department Directors Managers Legal Services	Ongoing
5. Identify systems which inhibit quality or need improvement by:		
5.1 Junk Days	Director - QI	May 1991
5.2 Tracking Corporate Indicators	Director - QI	Ongoing
5.3 VIP	Director - QI	Ongoing
5.4 MQIP	MQIP	Ongoing
6. Establish interdepartmental work teams to improve processes.	Department Directors	Jan 1991
7. Redesign the performance system to support Q.I.	Director Human Resources & Director - QI	Sept 1991
8. Requirements for accreditation will be incorporated in the Q.I. Plan	Director - QI Accreditation Committee	Sept 1990
9. Participate in Quality Examination - Phase 1	Director - QI	Done
Phase 2	Director - QI	Summer 1991
MOTIVATING & REWARDING		
1. Establish a recognition system to recognize individuals and teams who provide superior service or quality by establishing a Hospitals-wide recognition committee and incorporating specific recognition activities into every Department Plan.	Director Human Resources Communication Director - QI	Nov 1990

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
2. Establish an Employee Recognition Week.	Director Human Resources Recognition Committee	Feb 1991
3. Establish annual team awards for outstanding quality improvements.	Q.I.C.	Sept 1991
4. Establish a policy which encourages Managers to recognize quality accomplishments.	President's Council	Nov 1990
5. Publish an annual Quality Improvement Report to recognize accomplishments.	Communication	Sept 1991
6. Publish success stories news letter.	Communication Department Directors	Ongoing
7. Establish a Quality Celebration Day.	Communication Director - QI	Sept 1991
PERSONAL SKILLS		
1. Train a Master Trainer in WORKING.	Director - Education	Sept 1990
2. Train 12 facilitators in WORKING Phase 1 program. Phase 2 - 6 more facilitators	Director - Education	 Sept 1990 May 1991
3. Offer the WORKING program on an ongoing basis.	Director - Education	Ongoing
COACHING SKILLS		
1. Train a Master Trainer in Frontline Leadership.	Director - Education	Jan 1991
2. Train 12 facilitators in Frontline Leadership	Director - Education	

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
Phase 1		Done
Phase 2 - 6 more facilitators		Jan 1991
TEAM SKILLS		
1. Train a Master Trainer in groupAction.	Director - Education	Jan 1991
2. Train 6 facilitators in groupAction	Director - Education	
Phase 1		Done
Phase 2 - 6 more facilitators.		Jan 1991
3. Complete training of all managers in groupAction.	Director - Education	Jan 1991
TEAM STRATEGIES		
1. Train a Master Trainer in QUEST.	Director - Education	Oct 1990
2. Train 8 facilitators in Phase 1	Director - Education	Oct 1990
Phase 2 - 4 more facilitators.		Jan 1991
3. Offer QUEST program to Departments.	Director - Education	Nov 1990
4. Train Directors & V.P.s in Work Process Management implementing their Q.I. Plan.	Director - Education	Feb 1991
5. Form interdepartmental work teams to improve work processes.	Department Directors	Jan 1991
6. Train a Master Trainer in ESP.	Director - Education	Sept 1991
7. Train Managers to lead	Director - Education	Sept 1991

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
ESP sessions.		
8. Establish ESP teams to establish exceptional service as a way of life.	Department Directors	Sept 1991
QUEST - 4 CLASSES - 48 PEOPLE		
1. Directors and Coordinators for 1st - 4 modules		
2. Directors and Coordinators and their staff - 3 modules - start with pilot area.		
3. Staff - 3 problem solving modules.		
MEASURING QI RESULTS		
1. Establish a tracking system for Quality Improvement Initiative.	Director - QI	by Dec 1990
2. Establish a method to determine the cost of quality.	Director - QI Q.I. Staff	by Apr 1991
3. Determine the cost of quality phase 1. phase 2.	Director - QI Director - QI	April 1991 Sept 1991
4. Track Corporate Q.I. Indicators.	Q.I.C.	Ongoing
5. Publish Annual service improvement reports.	Communication	Sept 1991
6. Track MQIP indicators.	MQIP	Ongoing
7. Track patient survey results.	Director - QI	April 1991
8. Track VIP results.	Director - QI	Ongoing
9. Develop PRCP project.	V.P. Medical Affairs	Ongoing

MANAGEMENT FOCUS	PRIMARY RESPONSIBILITY	TARGET DATE
MARKETING TO CUSTOMER		
PHASE 2		
1. Distribute Annual Quality Report to customers.	Communication	Sept 1991
2. Involve 1 key customer on QIC.	QIC	Sept 1991
3. Begin to integrate quality message in external communications.	Communication	Sept 1991

LOOKING AHEAD TO YEAR 3

Over the course of the first 24 months of the quality initiative, many ideas and opportunities for new improvements will come forth. As we become more proficient at the improvement process, the clarity and quality of initiatives will increase dramatically. Looking ahead to year 3 of our quality initiative, potential improvement areas which appear to be likely candidates for action are as follows:

1. Statistical Process Control: University of Alberta Hospitals already employs SPC through V.I.P. We know from experience SPC works most effectively in an environment which encourages employee initiative. In addition employees should possess both the statistical and problem solving skills to utilize the statistical data. For this reason, it would seem appropriate to postpone the extension of SPC to other processes until after the first phase of the QI process.

2. Continuous Process Improvements: In conjunction with SPC, techniques such as CPI can help work teams to reduce the steps in specific work processes. Streamlining the process will significantly improve our productivity and fiscal efficiency. This will follow from our efforts in phase 2. By year 3, all Hospitals' Departments should be practising continuous process improvement.

3. Supplier Quality: University of Alberta Hospitals quality is a reflection of the quality of the goods and services delivered by our suppliers. To ensure the highest quality of parts and service from our suppliers the following Quality strategies should be considered:

    a) Validation of all specifications.

    b) Implementation of a "preferred supplier" and "supplier certification program" - reduction of the number of suppliers (already undertaken with Baxter).

    c) Extension of our quality initiative to include suppliers.

With the exception of validation of specifications which could be undertaken earlier, it is recommended that the supplier quality issues be pushed back to the third year to our quality initiative. There is no point involving our suppliers in concerted quality improvement effort until we have our "quality" house in order.

CONCLUSION

The University of Alberta Hospitals has set out to make itself leader in the areas of quality and service for patient care, education, and research.

The challenge for those charged with executing this strategy is to "bring it all together." Too often, those who create strategies and those who must make them work are not connected. This results in elegant plans that never come to life. In contrast, our quality initiative is simple and robust and our timeline realistic. We are determined to succeed. If we believe we can succeed and act accordingly, we will succeed. To quote the Roman poet Virgil, "They can because they think they can.

APPENDIX "A"

OUR MISSION

The University of Alberta Hospitals is committed to providing exemplary patient care and education in an atmosphere of compassion and scholarly inquiry while preserving the dignity and rights of patients and their families.

To meet the needs of those individuals entrusted to its care and to fulfil its obligations as an academic medical centre, the University of Alberta Hospitals will:

* offer a wide range of patient care and health promotion services essential to the community and the region including the development and delivery of highly specialized tertiary care programs;

* advance the health sciences by working in partnership with the University of Alberta and other institutions of learning to develop and carry out educational programs in a variety of health disciplines;

* promote, conduct and apply research in association with the University of Alberta and other agencies for the advancement of patient care;

* pursue and manage its resources effectively and respond to opportunities and changes in the health care system with boldness and innovation;

* adopt a leadership and collaborative role with other health care providers in developing health care programs and assessing the health care delivery system;

* generate a positive working environment that motivates staff and volunteers, fostering the productivity, pride and well-being of both the individual and the organization.

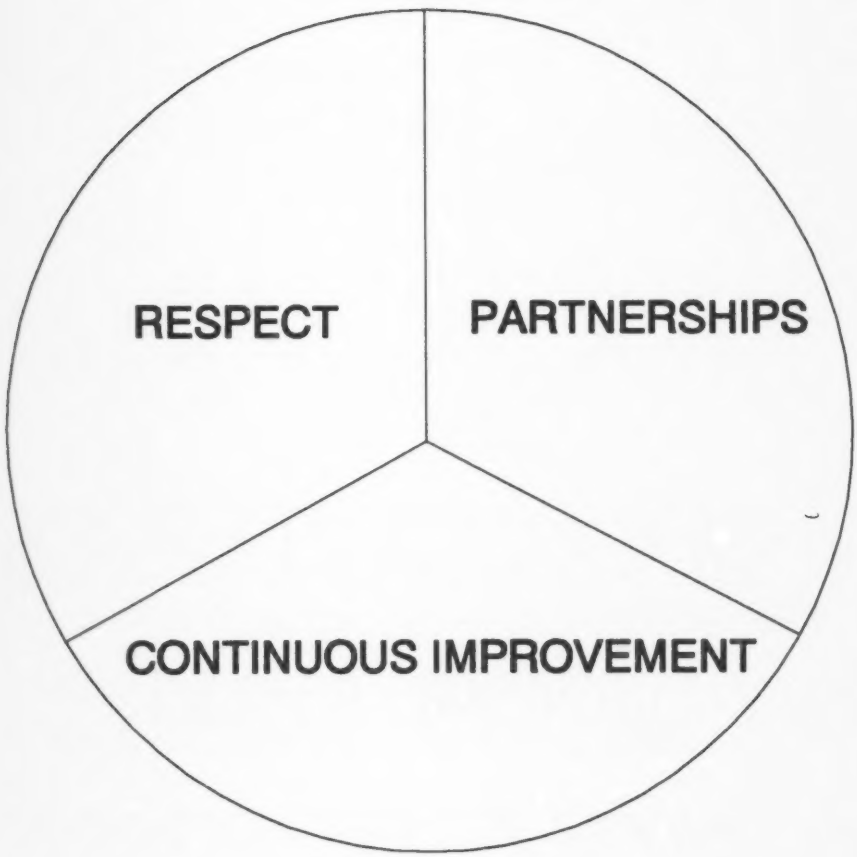
RFB

LEADERSHIP IN HEALTH CARE

CARING, TEACHING, DISCOVERING

UAHs QIP/MAR 90

OUR CORE VALUES



UAHs QIP/MAR 90

Role of the Quality Improvement Coordinator

- to assist the Director in planning & implementation of the Quality Improvement Plan.

Specifically, the Coordinator will do the following:

1. ensure employees are oriented to and understand the QI process.
2. model the core values and be enthusiastic about the QI process.
3. encourage and assist line management in their roles in implementing the QI process.
4. prepare the Department QI Plan.
5. assist in implementing the plan.
6. assess the need for training, coordinate training and follow-up.
7. assist in coordinating recognition events.
8. monitor QI training, initiatives and results.
9. participate in coordinators network.

APPENDIX "E"

QUALITY IMPROVEMENT COUNCIL (QIC)
TERMS OF REFERENCE

1.0 Type and Classifications

Standing Council of the Hospitals Administration

2.0 Purpose

The Council shall promote and recognize the improvement of quality throughout the Hospitals, monitor quality improvement initiatives, plan and evaluate the Hospitals Quality Improvement Process (QIP), provide leadership, visibility and be the focal point for the implementation of the Hospitals-wide Quality Improvement Process.

3.0 Structure/Function

3.1 The Council shall be the forum for overview and direction of all activity conducted in furtherance of the Quality Improvement Policy. In this regard it will be:

1) planning the Quality Improvement Process;
2) evaluating the cost of quality;
3) establishing priorities;
4) monitoring the Quality Improvement Process;
5) evaluating the Quality Improvement Process effectiveness;
6) establishing and monitoring operational indices of quality;
7) recognizing Quality Improvement achievement.

3.2 The Council shall propose to the President changes in the Hospitals policy, process or procedures required to advance the quality of care and services provided and advise of the financial and other implications of such changes. In this regard it shall:

1) Request that appropriate staff undertake such studies as are deemed necessary to evaluate the need for and implications of a change in policy, process or procedures.

2) Establish Quality Improvement Teams and Task Forces to recommend and make changes to take advantage of quality improvement opportunities and/or resolve service system, process, or procedure problems.

3) The Council shall empower appropriate staff to take appropriate action recommended by the Quality Improvement Teams, Value Improvement Task Forces, and other quality improvement efforts.

4.0 Organization

4.1 The Council shall report to the President. The President shall be the Chairman of the Council.

4.2 A meeting will be held at least once a month.

4.3 The Council shall consult with members of the medical staff, administrative directors, vendors and seek external advice as required.

5.0 Membership

5.1 Composition:

- President;
- All Vice Presidents;
- President - Medical Staff;
- Chairman - Medical Staff Advisory Board;
- Chairman - Service Quality Improvement Committee;
- Chairman - Nursing Council;
- Chairman - Medical Quality Improvement Committee.

Resource personnel normally attending meetings:

- Assistant to the Vice-President (Medical Affairs);
- Quality Improvement Staff.

6.0 Standing Committee of the QIC

There shall be two Standing Committees of the Quality Improvement Council. These are:

- The Medical Quality Improvement Council;
- The Service Quality Improvement Council.

See the Terms of Reference for each of these Committees.

Value Improvement Process

Purpose: *Examine a medical procedure to improve practice and quality while reducing cost.*

Phase I: Determine costs.

Phase II: Compare results.

Phase III: Explore opportunities for improvement.

Phase IV: Develop action plans.

Phase V: Implement.

Phase VI: Evaluate.

APPENDIX "G"

SERVICE QUALITY IMPROVEMENT COMMITTEE
TERMS OF REFERENCE

1.0 Type of Committee

Standing Committee of the Quality Improvement Council.

2.0 Purpose

This Committee shall be a forum for communication regarding the Q.I. Process and the inter-departmental quality improvement efforts.

3.0 Structure and Functions

3.1 This Committee shall be a forum for communication regarding the Q.I. Process. Specifically,

- two-way communication will be encouraged:

a) up-to-date information will be presented; and

b) feedback from members will be solicited;

- the opportunity for discussion and problem-solving will be provided;

- members will regularly report on their Departments' progress regarding the Q.I. plan.

3.2 This committee will be the focal point for inter-departmental quality improvement activities:

- quality indicators will be monitored to assist in determining specific processes for Work Process Management;

- members will have the authority to commit to inter-departmental quality improvement efforts;

- recommendations regarding processes for Work Process Management will be forwarded to QIC.

4.0 Organization

4.1 This Committee will report through the Chair (Vice President) to the Quality Improvement Council.

4.2 Meetings shall be held at least once monthly.

5.0 Membership

5.1 Composition

- Administrative Directors of Nursing, Operations, Support Services and Finance & Development;
- Assistant to the Vice President (Medical Affairs);
- Chair will be a Vice President;
- The Patient Representative;
- Manager of Communication;
- Director of Internal Audit.

5.2 Resource personnel normally attending meetings:

- Director of Quality Improvement and member of his/her staff;
- Chair of Medical Quality Improvement Committee;
- Vice Presidents;
- Quality Improvement Nursing Coordinator.

APPENDIX "H"

MEDICAL QUALITY IMPROVEMENT COMMITTEE
TERMS OF REFERENCE

The Medical Quality Improvement Committee (MQIC) will review, analyze and evaluate the quality and appropriateness of medical care in the Hospitals in its broadest sense. This Committee will report and be accountable to the Medical Staff Advisory Board (MSAB) to the Quality Improvement Council for the purpose of continually improving the quality of medical care and supporting the philosophy of quality as provided in the Board policy.

1.0 Objectives

The Medical Quality Improvement Committee shall:

1.1 Maintain and direct the medical quality improvement processes of the Hospitals. This shall include ongoing evaluation of the effectiveness of the efforts.

1.2 Analyze and evaluate regular reports from medical departments/divisions on patient care appraisal and action taken on identified problems.

1.3 Recommend a course of action to Department/Division heads through peer review when problems are not resolved.

1.4 Contribute to the continuing medical educational activities of medical staff on quality improvement and provide leadership and direction in the design and implementation of monitors of quality of care.

1.5 Foster multidisciplinary approach to quality issues.

2.0 Mandate

The mandate of the Medical Quality Improvement Committee will apply to:

2.1 Medical occurrence screening.

2.2 Focused reviews.

2.3 Mortality/morbidity reviews.

2.4 Other evaluation activities including reports from the Infection Control, Pharmacy and Therapeutics, Transfusion, Tissue Review and the Medical Records Committees.

3.0 Composition

3.1 Physicians, including one representative from each of Infection Control, Paediatrics, Anaesthesia, Obstetrics/Gynaecology, Emergency Medicine, Ophthalmology, Radiology, Laboratory Medicine, Psychiatry, and two representatives each from Faculty of Medicine, Medicine, and Surgery.

3.2 Ex officio: Vice President (Medical Affairs)
Coordinator, Medical Quality Improvement (MMA)

The Chairman of the MQIC shall be appointed for a one year term, which shall be renewable for three consecutive years.

Appointments will normally be for a three year term, with five appointments rotating each year.

4.0 Meetings

4.1 The Medical Quality Improvement Committee will meet at least 10 times per year.

3. Caritas Health Group (Misericordia Hospital) Framework

The TQM process at the Caritas Health Group is seen as evolving around four components which are centred around four key elements of the organization.

The four key elements of Mission, Values, Vision, and Strategic Directions provide the basis on which improvements are continuously made in the services provided by the organization.

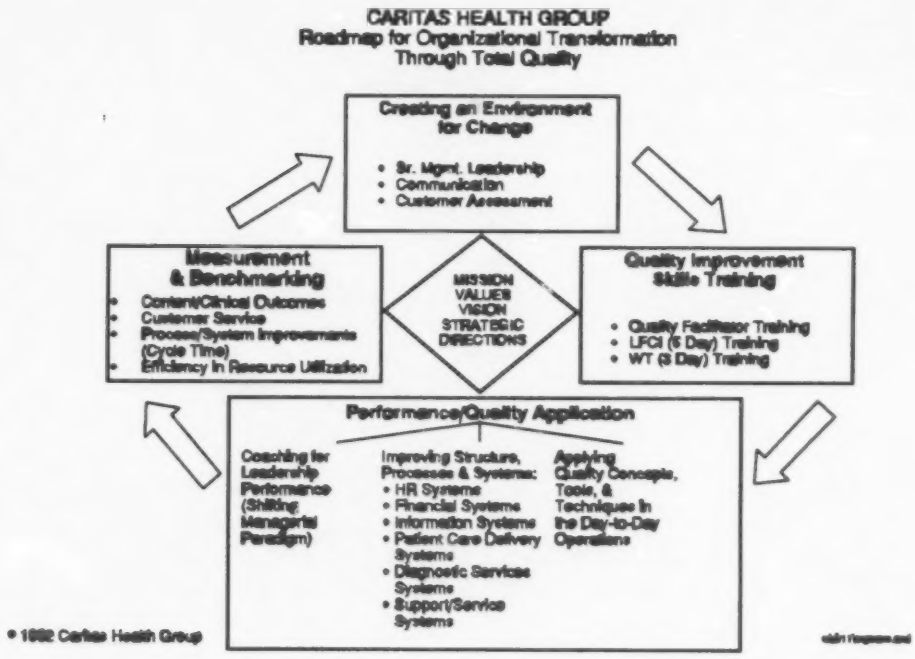
In the first component, "Creating an Environment for Change", Senior Management assumes a strong leadership role in both "unfreezing" the organization and in introducing the concept of Total Quality Management. This leadership role implies leadership not only the basis of communication of new expectations but also in demonstrating application of the new roles of leaders.

In the next component, "Quality Improvement Skills Training", the organization strives to provide the necessary skills and competencies to its workforce. This first serves the purpose of furthering the validity of the TQM concept and then proceeds to provide the skill sets to staff that are necessary for them to succeed in achieving their new expectations.

The third component, "Performance/Quality Application", is itself divided into three parts. Each part, while addressing aspects of performance, is designed to facilitate utilization of skills training received and efforts at continuous improvement of services. Coaching for Leadership Performance is designed to assist managers move from the traditional role of a manager to that of a leader. In the context of this model this is called shifting the managerial paradigm. One of the key means of achieving this shift has been Performance Management. The second part addresses needed structural changes that facilitate a focus on continuous improvement. The third part addresses the actual application of skills training in day-to-day work. This is partly accomplished through a process of departmental quality planning.

The final component, "Measurement and Benchmarking", attempts to provide a focus for the continuous improvement efforts. These four areas are intended to address technical, subjective, time-based, and cost-effectiveness aspects of quality of service and care. A fifth area, Appropriateness, has recently been acknowledged as comprising an additional area of focus for improvement efforts. In this model, appropriateness and the four other areas of outcome are seen as two sides of TQM coin; appropriateness equates to whether the organization is doing the right things, while the other four areas of outcome relate to

whether the organization is doing those things right.



4. The Caritas Health Group (Misericordia Hospital) Quality Improvement Plan

The process for Making Quality Happen begins by training Teams to use a Continuous Improvement Cycle (CIC). The CIC begins with an analysis of customer requirements and ends with Standard Operating Procedures in place that have eliminated the problem identified. Using the CIC, Teams will identify problems common to their work processes, systems and practices.

Teams will utilize the following improvement steps:

Step One: Develop a clear mission or vision for the Team that is aligned to the organizational vision.

Step Two: Identify who their customers are and their requirements. Use process mapping to show the "customer's experience" in dealing with the Team. Provide data on the Team's performance against current customer requirements.

Step Three: Examine functions and processes as they relate to customer requirements. If necessary, reorganize for

greater customer focus. Identify process owners within the Team and help Team Members to better understand how their work processes relate to customer requirements. Select and define performance indicators along with measurement tools and action plans.

Step Four: Evaluate the Team improvement efforts in meeting customer requirements on a continuous basis. Measure both process and outcome effectiveness.

Step Five: Provide opportunities for recognition and rewards to all Team Members.

MAKING QUALITY HAPPEN:

Quality Application in Day-to-Day Operations

OBJECTIVES

1.0 To provide Managers with a step-by-step roadmap for improving quality and productivity in the day-to-day operations. This roadmap will:

- Establish a framework for developing operational, quality, and productivity plans; and

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- Act as a guide for measuring performance.

2.0 To provide Performance Coaches with a framework for coaching managers in improving their day-to-day operational performance.

MAKING QUALITY HAPPEN:

Quality Application in Day-to-Day Operations

Making Quality Happen focuses our attention on the application of quality concepts, tools and techniques in the day-to-day operations through Functional and Cross-Functional Teams. Direct Involvement and Participation of Team Members who are doing the job is critical to the success of this process. Teams will critically analyze how they are organized to meet their customer requirements. Each Team Member will understand his/her role in quality improvement process and focus their efforts on bottom-line quality results, that is to meet the requirements of their customers in terms of ***value-added clinical/content outcomes; customer service/satisfaction; processes & systems (cycle time); and efficiency (productivity) in resource utilization.***

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Teams will utilize the following improvement steps:

Step 1
Set Team Vision that is Aligned to Caritas' Vision & Directions
Step 2
Identify Customers & Their Requirements
Step 3
Improve Functions, Processes, & Systems
Step 4
Measure Content, Service, Cycle Time & Productivity
Step 5
Provide Recognition & Appreciation
Quality Application Process In Day-to-Day Operations

Step One: Set a clear vision for the Team that is aligned to Caritas' vision and directions.

Key Actions:

- As a Team, discuss the Caritas's vision and its strategic directions. Set a vision for the Team that supports the Caritas's vision and its strategic directions;
- Discuss and clarify how decisions within the Team

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are contributing to the realization of Caritas' vision and strategic directions; and

- Communicate and seek feedback on the Team's vision.

Support Materials Required:

- Caritas's vision and its strategic directions
- Role and service provision criteria

Step Two: Identify customers and their requirements. Use process mapping to show the "customer's experience" in dealing with the Team. Provide data on the Team's performance against current customer requirements.

Key Actions:

- Identify all internal and external customers;
- Clarify customer requirements in terms of clinical/content outcomes; customer service/satisfaction; cycle time; efficiency; and other important requirements. Determine the extent to which these requirements are being met or unmet;
- Use a process map to show customer experience, if required; and

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- Analyze the cost of quality (COQ) within the Team's work processes, systems and practices.

Support Materials Required:

- Process Map and Flow Charts of Functions
- Customer Requirements/Feedback Data and Analysis

Step Three: Analyze and improve functions, processes and systems as they relate to customer requirements. If necessary, reorganize for greater customer focus. Identify process owners within the Team and help Team Members to better understand how their work processes relate to customer requirements. Select and define performance indicators along with measurement tools and action plans.

Key Actions:

- Identify and analyze key functions, processes and systems that relate to customer requirements. Eliminate non-value added functions, processes and systems, ie., process duplication, redundancies, etc.; and
- Reorganize work processes for greater customer focus. Set improvement goals and specific action

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plans (Identification of improvement projects and performance indicators, etc.).

Support Materials Required:

- Performance Indicators and Measurement Tools
- Value Added Analysis of Functions, Processes, and Systems
- Performance Assessment Planning/Forms for Managers and Staff

Step Four: Measure the Team improvement efforts in meeting customer requirements in terms of clinical/content outcomes; customer service/satisfaction; processes & systems improvements (cycle time); and efficiency in resource utilization on a continuous basis.

Key Actions:

- Monitor and measure the Team progress throughout the process in meeting customer requirements;
- Work with process owners to help them sort out their processes for greater customer focus;
- Identify processes that are working well and those that need immediate improvement;
- Set improvement goals, performance indicators, and

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specific action plans;

- Provide coaching and support throughout the improvement process; and
- Follow-up on the Team efforts on results achieved.

Support Materials Required:

- Charts and Graphs
- Quality Improvement Storyboards

Step Five: Provide opportunities for recognition and appreciation to all Team Members.

Key Actions:

- Hold regular recognition and appreciation events where positive examples of meeting customer requirements in terms of clinical/content outcomes, service, cycle time, and efficiency in resource utilization are identified and recognized;
- Develop a new performance assessment system that measures critical behaviours working in an environment of continuous improvement; and
- Provide appropriate additional training and development to staff as required.

Support Materials Required:

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- Recognition Program
- Coaching and Development Process
- Performance Assessment Program for Staff

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APPENDIX C

Training Courses in TQM

at the

University of Alberta Hospitals

and the

Caritas Health Group (Misericordia Hospital)

APPENDIX C

Training Courses in TQM at the University of Alberta

Hospitals and the Caritas Health Group

(Misericordia Hospital)

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University of Alberta Hospitals

1. Introduction to Quality Workshop

Target: All Staff

Length: 1 day

Not a skills program, but provides an introduction to the initiative in TQM at the Hospitals. It covers:

a) The reasons changes are necessary

b) Discusses who customers are and their importance

c) Discusses the importance of service

d) Addresses management of processes

e) Describes the "Twelve Cylinders"

f) Provides overview of Hospitals' Quality Improvement process

g) Describes the Hospitals' "Reason for Being"

h) Describes the Hospitals' core values

i) Describes how the quality improvement process relates to the corporate and departmental level

j) describes the Medical Quality Improvement process

* NOTE: Researcher attended a session on February 24, 1992

2. Enhanced Service Process (ESP)

Target: Selected Areas

Length: 13 sessions (Time commitment not known)

Not a skills program, but gives a method for Service Teams to provide exceptional service. It covers:

a) Why enhanced service?

b) What are we really selling?

c) Enhancing our basic product with service.

d) Examples of good service

e) What turns us off as customers?

f) What turns our customers off?

g) Enhanced service principles

h) Who is our customer?

i) Selling signals

j) Analyzing service sequences

k) Identifying our contact points

l) Action planning to enhance service

m) Follow-up

3. Frontline Leadership

Target: Anyone with direct reports: Directors, Managers & Supervisors (Each class has a maximum of twelve participants)

Length: 23-1/2 day sessions (scheduled 1/2 day per week)

Modules:

Core Interpersonal Skills

a) Your role and the basic principles

b) Giving constructive feedback

c) Getting good information from others

d) Getting your ideas across

e) Dealing with emotional behaviour

f) Recognizing positive results

Developing Individual Performance

g) Establishing performance expectations

h) Developing job skills

i) Coaching for optimal performance

j) Taking corrective action

Developing Team Performance

k) Clarifying team roles and responsibilities

l) Conducting information exchange meetings

m) Resolving team conflicts

Making Organizational Impact

n) Building a constructive relationship with your manager

o) Building a collaborative relationship with your peers

p) Confronting issues with your managers and peers

q) Winning support from others

Managing Change and Innovation

r) Managing Change

s) Fostering improvement through innovation

Problem Solving

t) Solving problems: The basic process

u) Solving problems: Tools and Techniques

v) Participating in problem solving sessions

w) Leading problem solving sessions

* NOTE: Researcher attended a session on March 18, 1992

3. GroupAction

Target: Anyone who chairs meetings or works with groups: Directors, Managers, Supervisors (Each class has a maximum of twelve participants).

Length: Each module requires four hours of class time scheduled once per week.

Modules:

Group Organization Skills

a) Getting started

b) Keeping moving

c) Generating action and concluding

Group Leadership Skills

d) Encouraging constructive participation

e) Managing diversity

f) Handling disruptive behaviour

g) Presenting an idea

Problem Solving

h) Solving problems: the basic process

i) Solving problems: tools and techniques

j) Participating in problem solving sessions

k) Leading problem solving sessions

* NOTE: Researcher attended a session on February 26, 1992

4. QUEST

Target: Selected areas (Each class has a maximum of 12 - 18 participants)

Length: Each module requires four hours of class time

Modules:

Basics of Quality Management

a) Quality: The Leadership Role

b) Analyzing work processes

c) Focusing your team on quality

d) Building individual commitment to quality

e) Sustaining momentum for continuous improvement

Customer Focus

f) Quality: the individual's role

g) Clarifying customer expectations

h) Resolving customer dissatisfaction

Problem Solving

i) Solving problems: the basic process

j) Solving problems: tools and techniques

k) Participating in problem solving sessions

l) Leading problem solving sessions

5. WORKING

Target: Non-management staff (each class has a maximum of 12 participants)

Length: 14 - 2.5 hour sessions scheduled once per week

Modules:

a) Introduction and the basic principles

b) Listening to understand clearly

c) Giving feedback to help others

d) Taking on a new assignment

e) Requesting help

f) Getting your point across

g) Participating in meetings

h) Keeping your boss informed

i) Resolving issues with others

j) Positive responses to negative situations

k) Working smarter

l) Dealing with change

m) Being a team player

* NOTE: Researcher attended a session on March 19, 1992.

6. Customer Listening Using Surveys

Target: Individuals/Units requesting

Length: Seven hours

Purpose: To provide tools and techniques to design the most effective survey tools possible in gathering customer information

7. QI Coaches Clinic

Target: QI Coaches

Length: Two and one-half days

Purpose: Enhance the skills of QI Coaches to facilitate the work of their respective teams

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Leading for Continuous Improvement (5-day program)	**Working Together (3-day Program)**
Objective: This 5-day workshop is designed for those who are in **leadership** roles to provide them with the essential knowledge and skills required for **implementing** a successful Total Quality Improvement (TQI) process.	Objective: This 3-day workshop is designed for **staff** to provide them with the knowledge and skills required for **working in Teams** and working in an environment that adopted Total Quality Improvement (TQI) process.
Brief Summary of the Program **Introduction to TQI at Caritas Health Group** In this Unit, participants will learn why do we need to change? What is TQI? What does TQI? do? How will TQI be implemented at Caritas Health Group? Participants will view a video called "The Business of Paradigms" by Joel Barker, also participate in a practical exercise (Wings or The Tennis Ball Exercise)	Brief Summary of the Program **Introduction to TQI at Caritas Health Group** In this Unit, participants will learn **exactly the same** materials as in the 5-day program.

Leading for Continuous Improvement (cont'd)	Working Together (cont'd)
Our Mission and Values In this Unit, participants will learn about our Mission and Core Values, plus some historical background of our founding Sisters - the Grey Nuns and the Sisters of Misericordia.	**Our Mission and Values** In this Unit, participants will learn **exactly the same** materials as in the 5-day program.
Leadership In this Unit, participants will learn about the roles of **Leaders** in the TQI process and how to use **Situational Leadership** to develop teams and team members. Participants will learn Situational Leadership Model through questionnaire and videos to identify their own leadership style, learn about the Model and how to use them effectively.	**Leadership** The 3-day participants **will only learn about the concept of Situational Leadership Model**
Coaching In this Unit, participants will learn how to use a coaching process to train and improve team and individual performance.	**Coaching** This Unit **will not be covered** in the 3-day program.

Leading for Continuous Improvement (cont'd)	Working Together (cont'd)
Leading Team Meetings In this Unit, participants will learn how to plan and lead effective team meetings. They will also learn about the **roles of Leader in developing teams**.	**Leading Team Meetings** In addition to learning about how to plan and lead effective team meetings, participants will also learn about the **roles of team members in creating a climate for teamwork**.
Dealing with Conflict In this Unit, participants will learn to identify sources of conflict and how to deal with them effectively.	**Dealing with Conflict** The 3-day participants will learn about the **same materials** as in the 5-day program.
Dealing with Change In this Unit, participants will learn about the dynamics of change and how to cope with them. Also, they will learn **how to provide effective leadership during changing situations**.	**Dealing with Change** In this Unit, participants will also learn about the dynamics of change and how to cope with them. In addition, they will learn about **their roles during changing situations**.
Making Things Happen & The Toolkit In this Unit, participants will learn how to identify improvement opportunities using quality	**Making Things Happen & The Toolkit** The 3-day participants will learn **exactly the same materials** as in the 5-day program.

Leading for Continuous Improvement (cont'd)	Working Together (cont'd)
improvement tools and techniques. Participants will be required to work in small groups using the Continuous Improvement Cycle or S.T.R.I.D.E.S. problem-solving model to identify and solve work-related issues or problems.	
Organizing for Quality In this Unit, participants will learn how to plan and organize for improvement efforts in their day-to-day operations. They will also be required to establish a follow-up plan with the facilitators before the end of this 5-day program.	**Organizing for Quality** This Unit **will not be covered** in the 3-day program.

* NOTE: Researcher attended 5-day course July 8-12, 1991.

APPENDIX D

Personal Interview and Telephone Survey Questionnaires

Appendix D

Personal Interview and Telephone Survey Questions

Questions for Personal Interviews

1. What was the environment in the organization pre-TQM?
2. When did you first hear of TQM? In what context?
3. What was the initial reaction to the introduction of TQM?
4. Why was there a commitment to TQM?
5. Why wasn't another approach considered?
6. What type of implementation plan was there for TQM?
7. What efforts were made to prepare people (staff, management, physicians) for their new roles?
8. What approach was taken with those not willing to commit to TQM?
9. What benefits have there been from the commitment to TQM?
10. What problems have their been with implementation and development of TQM?
11. How would you rate the significance of the impact of TQM on the organization?
12. Where does the organization go from here?
13 Is the organization where you expected it to be?

Questions for Telephone Surveys

1. What was the organization like prior to the implementation of TQM?

2. How did you first hear of TQM?
3. What was your initial reaction to TQM?
4. Did you understand why TQM was being introduced?
5. How much exposure have you had to TQM in the organization?
6. Has TQM had any impact on the organization or your work?
7. Have there been positive changes in your work?
8. Have there been problems that you can see?
9. Do you believe that TQM should be continued in the organization?
10. What needs to be done to make this effort worthwhile or more worthwhile?